

ABSTRACT

Title of dissertation: PARENTING AND COLLEGE ENROLLMENT:
THE EFFECTS OF PARENTING STYLE AND
PRACTICES ON COLLEGE ENROLLMENT FOR
BLACK, WHITE AND HISPANIC CHILDREN FROM
DIFFERENT ECONOMIC AND FAMILY CONTEXTS

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This study used logistic regression to analyze the effects of parenting style and practices on college enrollment for 2116 Hispanic, Black and White respondents from differing economic and family contexts. Using data from the young adult children of women of the National Longitudinal Survey of Youth 1979, five key findings related to parenting and college enrollment were identified. They include:

- 1) The effect of parenting practices on college enrollment is not influenced by the parenting style adopted by the parent
- 2) The authoritarian parenting style is a better predictor of college enrollment than the authoritative parenting style for Hispanic respondents
- 3) Higher parental involvement at home is associated with higher odds of college enrollment
- 4) Higher parental involvement at school is associated with higher odds of college enrollment only for White students from single-mother and dual-parent families

- 5) There is a negative interaction between being Black and higher parental involvement at school

The findings of this study contribute to the literature on parenting styles, parental involvement and college enrollment. The implications for practice and research are discussed.

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CHAPTER 1: INTRODUCTION

“Are U.S. parents too soft?” asks a recent article published in *The Wall Street Journal* after reviewing a new book entitled *Battle Hymn of the Tiger Mother*. In this book, Amy Chua shares her story of parenting her two daughters “the Chinese way” as opposed to the approach taken by many Western parents. Chua’s narrative provides support to the theory that there are differences in parenting by culture. Further, the attention Chua’s book has gathered highlights the public’s interest in styles of parenting that achieve school success for children.

Interest in parenting and youth educational outcomes is also prevalent in the academic realm. Since the James Coleman report of the 1960s, researchers have agreed that conditions in families are relevant to the academic achievement of students (e.g. Clark, 1985; Epstein, 1991; 1995). Attempts to understand the influence that parents have on their children's outcomes has been a major focus within both psychological and educational literatures (e.g. Clark, 1985; Lareau, 1989; Epstein & Dauber, 1991; Yan, 1999). Researchers have investigated both the influence of particular parenting practices (e.g. Steinberg, Lamborn, Dornbusch, & Darling, 1992; Gutman & McLoyd, 2000) and of parenting styles (e.g. Baumrind, 1971; 1983; 1991; Maccoby & Martin, 1983; Dornbusch, Ritter, Leiderman, Roberts and Fraleigh, 1987; Brown & Iyengar, 2008) on student outcomes. However, there is disagreement about the relative importance of both of these constructs (Darling & Steinberg, 1993). There is also a lack of understanding of how the constructs relate to each other (Darling & Steinberg, 1993).

Further, research on the effects of parenting style and parenting practices on the educational outcomes of non-White students (Glotnick & Ryan, 1989; Davis-Kean & Sexton, 2009), students at varying socioeconomic levels (Boggess, 1998) and students

from single-parent families (Boggess, 1998; Jeynes, 2005) are severely limited. As a result, little is known about the effects that parenting practices and parenting styles employed by non-White and/ or economically disadvantaged single-parents have on the college enrollment of their children. To address these gaps, this study explores two central, interdependent questions:

1. *What relationships exist among parenting styles, parenting practices, and the likelihood of enrolling in college?*
2. *To what degree do those relationships vary by race and ethnicity, family income, and family structure, when gender, region, and mother's education are controlled?*

Background factors such as race and ethnicity, family income, and family structure are commonly referenced in attempts to address inquiries about parenting styles and practices. Less common parlance of the social science research in this area, according to Darling and Steinberg (1993) addresses (a) the extent to which parenting style further influences the parenting practices a parent utilizes, (b) the extent to which parenting practices in conjunction with parenting style and background factors, directly impact college enrollment, and (c) the extent to which background variables (e.g., gender, mothers' education, and residence) are controlled in analyses of large data sets when attempting to predict the college enrollment of diverse groups. The remainder of this chapter (a) describes briefly the key concepts and significance connected to the central thesis questions of this study, (b) provides initial evidence to support the impetus for this line of inquiry, and (c) offers a preview of subsequent chapters.

Parenting Style vs. Parenting Practices

Darling and Steinberg (1993) hypothesized that parenting practices have direct effects on the development of specific child outcomes. They suggested that the effects depend on (a) the extent to which the practice is correlated with a particular outcome, (b) the parenting style with which the practice is performed, and (c) the influence of the parenting style on the child in general. Similarly, the findings of other studies have found the interaction effects of specific parenting practices and parenting style to be stronger than the individual effect of either construct alone (Steinberg, Lamborn, Dornbusch, & Darling, 1992; Grolnick, Gehl, & Manzo, 1997). For instance, Steinberg et al (1992) found that parental involvement more often promoted adolescent school success when it occurred in the context of an authoritative home environment. Despite the potential relationship between the two constructs, the majority of research has studied each in isolation (Darling & Steinberg, 1992).

Family Structure

Much of the empirical research done to date has found the relationship between family background and educational outcomes of students to be significant (e.g. Clark, 1985; Epstein, 1991; 1995; Lareau, 1989; Epstein & Dauber, 1987; 1991; Yan, 1999; Davis-Kean & Sexton, 2008). As a result, a large portion of research has been conducted considering family socio-demographics, thus ignoring the essential character of the family environment and its impact on the education of children (e.g. Sandefur, McLanahan & Wojtkiewicz, 1992; Boggess, 1998; Ermisch & Francesconi, 2001; Ver Ploeg, 2002; Nybroten, 2003; Gennetian, 2005). The most consistent finding drawn from this literature suggests that college enrollment varies as family structure varies. For instance, Nybroten (2003) found that non-traditional adolescent family structures

negatively influenced college entry and completion. Family structure measures current family membership, while family transitions measure changes in family such as experiencing a divorce, remarriage, or cohabitation (Brown, 2006). Nybroten's (2003) findings are consistent with other findings that report negative effects of single-mother families on college enrollment (McLanahan & Sandefur, 1994). However, Nybroten (2003) found that when controlling for socioeconomic status these results become insignificant.

Family Income

Increasingly more research and national reports link lower socioeconomic status with negative student outcomes such as: an increased likelihood of having low academic achievement (Bradley & Corwyn, 2002), dropping out of school (Brooks-Gunn & Duncan, 1997; Rumberger, 1999), and a decreased likelihood of college enrollment (Brooks-Gunn & Duncan, 1997; NCES, 2010). It is evident that socioeconomic differences negatively influence college enrollment for lower income students in a 2005 College Board report. In this report College Board (2005) stated that in 2003 80 percent of students from families with incomes in the upper 20 percent (above \$78,800), 65 percent of those from the second highest quintile, and 61 percent of those from the middle-income quintile enrolled in college immediately after high school, compared to only 49 percent of graduates from the lowest 40 percent of the family income distribution. Additionally, research also found that the effects of parenting factors on educational outcomes varied across socioeconomic levels (Clark, 1983; Lareau, 1989; 2003; Matthews- Armstead, 2002). For instance, Lareau's (1989, 2003) studies on family-school relationship differences found variations in parental involvement between

working and upper-middle class families. Additionally, according to Kohn (2005) children in lower income classes were more likely to be the objects of harsh discipline and to be raised by mothers who were less warm in their behavior towards their children.

Race and Ethnicity

While the proportion of Black and Hispanic students aspiring for baccalaureate degrees is about the same or higher than the portion of White students with similar aspirations (NCES, 1996), Black and Hispanic students are less likely to make the transition from high school to college (CPS, 2008). For instance, in 1992 72 percent of Black seniors aspired to a bachelor's degree or higher along with 62 percent of Hispanic seniors and 70 percent of White seniors (NCES, 1996). Meanwhile, in 1992 only 48 percent of Black and 55 percent of Hispanic high school graduates continued on to undergraduate education by the October following high school completion compared to 64 percent of White graduates (CPS, 2008).

Research that examined the effects of parenting style or practices on educational outcomes found that it varied across cultural contexts (e.g. Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987; Clark, 1985; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Lareau, 2003; Perna & Titus, 2005). For instance in Dornbusch et al.'s (1987) study of the most promising parenting style, authoritativeness, the authors found that the association between authoritativeness and school performance was much stronger amongst White and Hispanic adolescents than among Asian and African American adolescences. Similarly, Perna and Titus's (2005) study of the relationship between parental involvement and college enrollment by racial and ethnicity group differences found that parental involvement varied across racial and ethnic groups. These authors

called for researchers to move “beyond a cultural deficit approach that focuses on defining ‘acceptable’ behavior in terms of the behavior that is exhibited by the dominant group and to move toward an approach that appreciates the unique strengths of each group” (2005, p. 508).

Significance

Attending and completing college has become increasingly important for success in labor markets (Carey, 2004; Hefner, 2004). The wage differentials between college graduates and non-college graduates in the U.S. has widened in the past two decades (Katz & Murphy, 1992; Murphy & Welch, 1993; Juhn, Murphy & Pierce 1993). As a result, it is increasingly significant for educators and policymakers to understand gaps in college enrollment between dominant and marginalized groups. Parents are aware of the increasing significance of a college degree in the workforce and the importance of their role in the college enrollment of their children. Typically parents acquire the knowledge and skills to perform their roles as parents through their ethnic and cultural heritage, their kinship network, their friendships, their community, and the resources that are available to them (Julian, Mckenry, & Mckelbey, 1994). However, knowledge about parenting styles and practices that lead to college enrollment are not available to all parents equally. For instance, parenting education classes are one path to learning about effective parenting, yet many parents do not have access to this resource. According to the National Center for Infant and Early Childhood Health Policy, nearly three-quarters of parents (73%) who did not attend college and 69 percent who had an annual income of less than \$40,000 did not attend parenting education classes. Similar statistics were found for minority parents (Halfon, Uyeda, Inkelas and Rice, 2004).

Meanwhile, over 75 percent of parents indicated that they could use information on various aspects of parenting. The report indicated that many moderate and high-income families benefit from parenting education information through formal classes, videos and other resources while lower-income parents were less likely to report having an opportunity to participate in educational activities that assist them in understanding issues affecting their child's development and the parenting practices that optimize school readiness. The gap in participation in parenting classes for minority and lower-income parents is two-fold. One, these parents are more likely to experience time, transportation and income constraints. Secondly, there is a lack of cultural proficiency in parenting education programs (Green & Palfrey, 2002) and other sources on parenting. When minority and/ or lower income parents do take advantage of parenting resources they may not be as relevant to them as they are to White, middle-class parents because there is a tendency to gloss over important within-group differences amongst parents by race and ethnicity (Allen, 1995). There is also a tendency to gloss over important within-group differences amongst students and their families by race and ethnicity (Allen, 1995). While there are broad generalizations in parenting that can be made about each cultural group, families within these groups show considerable diversity based on factors such as economic status and family formation (Wilkinson, 1987; Allen, 1995). However, little is known about the unique parenting of minority parents overall, let alone about minority parents at varying income levels. This is because what is known about parenting is based primarily on studies conducted on White, middle class families.

This knowledge is then used as the benchmark against which other groups are compared, resulting in a cultural deficit approach to understanding differences in

parenting between minority and dominant groups (Clark, 1983; Julian, Mckenry, & Mckelvey, 1994). This research acknowledged the strengths of Black and Hispanic families as well as those of White families by investigating the roles of parents from each group in facilitating college enrollment as well as by investigating parenting styles and practices influences that negatively influence college enrollment for particular groups. As schools are vital information sources that all parents have access to, providing schools with culturally responsive parenting information would be an invaluable asset to all parents.

Conclusions

This dissertation is divided into five chapters, which together introduces the study, puts it in context with related research, details the plan of analysis, and reports and discusses the findings. Chapter two presents an overview of the academic research that questions the impact of parenting style and parenting practices on the educational success of Blacks, Whites and Hispanics from different income levels and family structures. As is explained in chapter two, the parenting factors examined in this study are parenting style- the *how* of parenting, and parenting practices- the *what* of parenting. In other words, the extend of parents' demandingness and responsiveness as well as the specific actions parents take to facilitate positive child outcomes are examined in this study as factors that predict college enrollment.

Chapter three provides an overview of how the study is conducted. This chapter details the sample and data source, research questions, variables, and research methods used to perform the analysis. Chapter four opens with an overview of the overall sample and an overview by race. It then discusses the research findings related to each of the four

research questions. Finally, chapter five connects the findings to what earlier research has noted and identifies corroboration or negation of the research. To conclude, the researcher makes recommendations for practice, policy, and future research based upon the knowledge introduced in this research study.

To be clear, this is a beginning text. There is yet much work to be done to bring consist understandings of how parenting factors influence the college enrollment of children. Despite the massive research literature which suggests that authoritative parenting and increased levels of parental involvement both at home and school are optimal for all students, the scholarly research in this area is still very limited.

CHAPTER 2: LITERATURE REVIEW

A recent survey by the United Nations Children's Fund (UNICEF) found that children in the United States were poorer, had poorer relationships with their family and peers and were more likely to use alcohol and drugs than those in any other highly industrialized country in the world, second only to the United Kingdom (2007). This report highlights the importance of effective parenting and places the consequences in an international context. These findings surely have implications for children, including negative consequences for their school success and the probability of enrolling in college.

The vast majority of studies that have investigated the relationship between parenting style and practices and educational outcomes have concentrated on academic achievement at the primary and secondary levels while our knowledge about the relationship of these parenting factors to postsecondary education remains weak. However, there is good reason to expect that the strength of the influence of parenting on elementary and secondary achievement will extend to college enrollment because students from homes with effective parents earn better grades and higher test scores, compared to their peers in home with less effective parents (Spera 2005, Steinberg et al. 1992); and because parental involvement does not seem to wane as children grow into adolescents (Astone & McLanahan 1991, Glasgow et al. 1997).

This review explores the direct and indirect influences of parenting on the college enrollment of students by race and ethnicity, income level and family structure. For the purposes of this review, *parenting* consists of both what parents do (parenting practices) and how they do it (parenting style). This chapter reviews what previous studies have found the effects of parenting on child outcomes to be by examining literature in

education, sociology, psychology and family science. The results of key word searches using variations of the phrases “parenting practices and college enrollment,” “parenting style and college enrollment,” “parenting and student outcomes” led to an examination of the bodies of literature aforementioned. The primary search engines used were JSTOR, EBSCO, and ERIC. Additionally, the researcher examined the bibliographies of seminal texts and identified additional relevant references.

The first section of this chapter reviews literature on parenting styles, while the second section reviews literature on parenting practices. The two sections in tandem present academic research that questions the impact of parenting style and parenting practices on the educational success of Blacks, Whites and Hispanics from different income levels and family structures.

Parenting Style and Parenting Practices

Over the last two decades, a large body of research has examined the influence of different types of parenting styles and specific parental practices. However, analysis of the literature is not as straightforward as it could be as researchers often use the two terms interchangeably (Maccoby & Martin, 1983). Darling and Steinberg (1993) suggested researchers make a distinction between parenting styles and parenting practices in order to better understand their individual and collective influence on child outcomes. In this review, Darling and Steinberg’s (1993) distinctions between the two constructs are used to classify studies within each domain. The authors defined parenting practices as “specific goal-directed behaviors through which parents perform their parental duties” (1993, p. 488). Parenting style was defined as “a constellation of attitudes toward the

child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviors are expressed" (1993, p. 488). Parenting styles have been understood as dimensions of parental responsiveness and demandingness/control (Baumrind, 1991). In the sections that follow, the literature on parenting styles and parenting practices is reviewed and critiqued.

Parenting Style

This section will first present an overview of the parenting style typology. It will then review and critique the literature examining the relationship between parenting style and student achievement. Finally, it will assess whether the relationship between parenting style and student achievement is consistent across ethnic groups, income groups and diverse family structures.

Parenting style typologies

Early research on parenting styles identified, named, and examined numerous aspects, such as responsiveness/unresponsiveness (Baldwin, 1948; Sears et al, 1959; Schaefer, 1959; Rogers, 1960), democratic/ autocratic (Baldwin, 1948), emotionally involved/ uninvolved (Baldwin, 1948), control/ lack of control (Schaefer, 1959), acceptance/ rejection (Symonds, 1939), dominance/ submission (Symonds, 1939), and restrictiveness/ permissiveness (Becker, 1964). These studies concluded that warm, democratic and firm parenting was associated with higher levels of competence and social adeptness (Sears et al, 1957).

Later, Diana Baumrind (1971, 1978, & 1989) created the most commonly used classification of parenting styles. After a series of studies on children and their families, Baumrind identified three primary family interaction styles: authoritative, authoritarian

and permissive. These three family types differ in the values, behaviors, and standards that children are expected to adopt; in the ways these values, behaviors, and standards are transmitted; and in parental expectations about the behavior of children. More specifically, parenting style captures two elements of parenting: parental responsiveness and parental demandingness (Baumrind, 1991). *Parental responsiveness*, or parental warmth or supportiveness, refers to "the extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" (Baumrind, 1991, p. 62). *Parental demandingness*, or behavioral control, refers to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to confront the child who disobeys" (Baumrind, 1991, pp. 61-62).

Authoritative parenting

An authoritative parenting style is displayed by warm and responsive, yet firm and demanding parents. These parents provide their children with affection and support in their explorations and expressed interests. They also hold expectations of mature behavior, and provide firm enforcement of rules and standards and use commands and sanctions when necessary. Authoritative parents foster these demands through bidirectional communication between parent and child, explanations for their actions and decisions, and encouragement of independence and individuality. For instance, when socializing children to do well in school, these parents might offer rationales for their actions and priorities such as "It will increase your chances of enrolling in college, which

will allow you to succeed as an adult.” Authoritative parents score high on measures of responsiveness and demandingness (Maccoby & Martin, 1983).

Authoritarian parenting

The authoritarian parent “attempts to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct” (Baumrind, 1966, p. 890). Authoritarian parents are not warm or responsive, but are extremely demanding of their children. These parents are strict and they emphasize obedience, respect for authority, work, tradition, and order. Authoritarian parents exert power over their children when they misbehave; bidirectional communication between parent and child is discouraged. These parents express their demands via rules and orders without necessarily communicating the rationale behind these rules. A saying of an authoritarian could be “you must do well in school because I said so.” Authoritarian parents score high on measures of demandingness and low on measures of responsiveness (Maccoby & Martin, 1983).

Permissive parenting

Permissive parents are lax in their expectations for their children’s level of maturity and their tolerance of misbehavior. These parents use as little punishment as possible, make few demands for mature behavior and allow considerable self-regulation by the child. They are moderate in their responsiveness towards their children, however. They are usually dismissive and unconcerned when socializing their children. These parents are “more responsive than they are demanding. They are nontraditional and lenient, do not require mature behavior, allow considerable self-regulation, and avoid confrontation” (Baumrind, 1991, p. 62). Permissive parents score moderate to high on

measures of responsiveness and low on measures of demandingness (Maccoby and Martin, 1983).

Neglectful parenting

After a review of the literature, Maccoby and Martin (1983) split permissive parenting into permissive-indulgent and permissive-neglectful. This added a fourth parenting style referred to as *neglectful parenting*. Neglectful parents score low on measures of responsiveness and demandingness. Table one provides a conceptual illustration of the four parenting styles discussed.

Table 1: Parenting Style Typologies Chart		
	<i>Demanding</i>	<i>Undemanding</i>
<i>Responsive</i>	Authoritative	Permissive
<i>Unresponsive</i>	Authoritarian	Neglectful

Parenting style and student school achievement

A large majority of research conducted on parenting styles and school achievement has found a positive relationship between authoritative parenting and student educational achievement and outcomes (e.g. Dornbusch, Ritter, Leiderman, Roberts and Fraleigh, 1987; Steinberg, Lamborn, Dornbusch & Darling, 1992; Glasgow, Dornbusch, Troyer, Steinberg & Ritter, 1997). The other three parenting styles are only discussed in the research literature in relation to authoritative parenting and are described as negatively effecting child educational outcomes. For instance, in an effort to test Baumrind's initial typology of authoritarian, permissive and authoritative parenting styles in the context of adolescent school performance, Dornbusch et al. (1987) used a large and diverse sample of approximately 8,000 high school students. In this study the researchers

found that authoritative parenting tended to be positively associated with grades, while authoritarian and permissive parenting styles tended to be negatively associated with grades. This study further found that authoritarian parenting held the strongest (negative) relation to grades, except among Hispanic males.

Dornbusch, Steinberg and their colleagues (1992) examined the relationship between parenting style, parental school involvement and encouragement in an ethnically and socioeconomically heterogeneous sample of over 6,000 American 14-18 years old adolescents. In this study the authors found that authoritative parenting had a positive effect on adolescent school performance and engagement (Steinberg, Lamborn, Dornbusch & Darling, 1992). Students from homes that were rated higher on the authoritative scale scored higher than students from homes that scored moderately on the authoritative scale. In turn, students from homes that scored moderately on the authoritative scale scored higher than students from homes that scored low on the authoritative scale.

Using a smaller sample, Glasgow et al. (1997) examined the predictive relations among parenting styles, adolescents' attributions, and four educational outcomes of a socially and economically diverse sample of 11,000 high school students. This study found that nonauthoritative parenting styles were associated with a greater tendency to express dysfunctional attributions in high school. Adolescents from these family environments were less apt to view their academic achievements as the result of their own capacities and persistence. Instead, they more often reported either external causes for high school grades or low ability as the cause of poor grades. These dysfunctional

attributions reduced students likelihood of engaging in achievement maximizing behaviors and, therefore, of succeeding academically.

In a longitudinal study examining the influence of perceived parenting style on conscientiousness and high school academic performance of over 784 culturally and economically diverse adolescents in Australia, Heaven and Ciarrochi (2008) came to slightly less positive conclusions about the impacts of authoritative parenting. The authors found that authoritative parenting at Time 1 was significantly related to outcomes in English, religious studies and history, but not to outcomes in science and math achievement at Time 3 (Heaven & Ciarrochi, 2008). This suggests that authoritative parenting differs in its ability to predict achievement outcomes across academic subject areas. The authors offered that this may be because math and science achievement rely more on innate academic ability and acumen.

Overall, the research literature supports the theory that children of authoritative parents have a higher academic performance than do children of parents employing authoritarian, permissive or neglectful parenting styles. However, the relevant research on parenting styles places a primary focus on authoritative parenting and only examines the other parenting styles in relation to authoritative parenting. Therefore, additional research on neglectful, permissive and authoritarian parenting is needed to better understand the parenting of non-White populations as well as to better understand the effects of authoritative parenting.

Parenting style consistencies by race and ethnicity, class and family structure

Research has indicated that the relationship between authoritative parenting and positive educational outcomes is not consistent across diverse ethnic (Dornbusch et al,

1987; Steinberg et al, 1992a, Steinberg et al, 1992b; Pittman & Chase-Lansdale, 2001) and socioeconomic backgrounds (Pittman & Chase-Lansdale, 2001; Matthews-Armstrong, 2002; Bluestone and Tamis-LeMonda, 1999) as well as nontraditional family structures (McLanahan, 1985; Sandefur, McLanahan and Wojtkiewicz, 1992). These studies support the need for considering the degree to which parenting style may be in the eye of the beholder, and they provide additional support for disaggregating and examining data by race, ethnicity, socioeconomic status, and family structure.

Race and ethnicity

Results from numerous studies conducted in the U.S. with minority ethnic and racial groups questioned the idea that authoritative parenting was always the optimal parenting style for these youth (Dornbusch et al, 1987; Steinberg et al, 1992a, Steinberg et al, 1992b; Pittman & Chase-Lansdale, 2001). For instance, Dornbusch et al's (1987) study (discussed in the previous section) found that authoritative parenting was positively associated with grades, while authoritarian and permissive parenting styles were negatively associated with grades. However, these findings were not consistent across families from diverse racial and ethnic groups. Further, parenting style tended to differ by ethnic and racial groups. According to Dornbusch et al (1987) Asian, Black and Hispanic families tended to employ authoritarian parenting more than White families. On the other hand, Black parents tended to utilize permissive parenting less than White parents while Hispanic and Asian parents tended to employ permissive parenting more than White parents. Finally, minority families tended to employ authoritative parenting less than White families, with the exception of Black families with male children. There were also

differences in the strength of the correlations between parenting styles and grades by race and ethnicity. For instance, authoritative and permissive parenting styles showed no relationship to grades for Asian students, while authoritarian parenting was the predictor of grades. Likewise, authoritarian parenting showed no relation to grades for Hispanic males. With regard to Blacks, no parenting style was significantly associated with grades. Steinberg et al's (1992) later study (also discussed in the previous section) came to the same conclusions about the applicability of parenting style to the school performance of Black students. In this study the authors note that "parental authoritativeness is not a good predictor of academic achievement in African-American homes" (1992, p. 1275).

In yet another study by Steinberg and his colleagues, it was found that adolescents achieve more in school than their peers when raised by authoritative parents (Steinberg, Dornbusch, and Brown, 1992). However, this study focused on understanding how diverse contexts in students' lives affect their outcomes. The authors found that there was no relationship between authoritative parenting and academic achievement for Black students. They also found that authoritarian parenting was highly related to school engagement for Hispanic students. The study attributed the positive relationship between authoritarian parenting and the high grades of Asian students to peer support for academic excellence. They explain that this support counters the negative impact of authoritarian parenting in Asian homes. In reviewing the available research, Steinberg (2001) concluded that although African-American and Asian-American children are not as negatively affected by authoritarian parenting as are children from other ethnic groups, authoritarian parenting is not associated overall with positive adjustment. Similarly, in a study examining the relationship between parenting and academic achievement of high

school students among a sample of Asian Americans, Hispanics, African Americans and European Americans results showed that Whites are more authoritative than other ethnic groups, but that the relationship between having an authoritative parenting style and student academic achievement is supported only for the majority group (Park & Bauer, 2002).

Using the National Survey of Families and Households Data (NSFH), Taylor, Hinton and Wilson (1995) examined the interview data of 566 Black students between the ages of 5 and 18 to determine how parental control, involvement, nurturing and expectations predicted the academic outcomes of students. The multiple regression analysis revealed that parenting style and parental involvement significantly predicted school grades. Furthermore, this study found that the children of parents who used an authoritarian parenting style received lower grades in school than did students whose parents used an authoritative style. Students with permissive parents (low control, high nurturance) were also found to have lower grades than those of students with authoritative parents. Authoritarian parenting styles have been found to be more prominent amongst Black parents. This study suggests that such parenting styles are not in the best interest of students academically. However, the authors note that such measures may be in the best interest of children in certain environments (i.e. areas of high poverty). They suggest that parents in these environments may actually protect children from the various dangers associated with life in high poverty areas by using authoritarian parenting. As a result, the authors stated that it is difficult to discern which parenting styles would be best for low-income parents. In order to better understand how family

processes can contribute to the educational success of low-income Black students, more research needs to be done in this area.

Socioeconomic status

Studies discussed previously elucidate that middle-class White parents are more likely to adopt an authoritative parenting style than parents at lower socioeconomic levels. However, these studies say little about parenting styles adopted by lower-income families. Studies questioning the influence of parenting style on the school outcomes of low-income students tend to focus on African American families (e.g. Pittman & Chase-Lansdale, 2001; Matthews-Armstrong, 2002; Bluestone and Tamis-LeMonda, 1999).

One such study examined the influence of parenting styles on a sample of 302 African American adolescent girls and their mothers living in impoverished neighborhoods (Pittman & Chase-Lansdale, 2001). This study revealed that low-income African American parents of daughters were more likely to adopt authoritative and neglectful parenting styles. More specifically, approximately one third of the sample employed an authoritative parenting style, another one third employed a neglectful style, while 18% were authoritarian and 17% were permissive. Similar to other studies, results of this study showed that parenting style was significantly related to several adolescent outcomes, including teenagers reported grades. Teen girls with neglectful mothers had significantly lower grades than teens with authoritative, authoritarian or permissive mothers. The findings were consistent with other studies suggesting that authoritative parenting is less effective in influencing the academic achievement of African American youth compared to White youth (Dornbusch et al, 1987; Steinberg et al, 1991). The

authors suggested that community disincentives for academic achievement in impoverished neighborhoods may counteract the positive influence of authoritative parenting on academic achievement.

Matthews-Armstrong's (2002) qualitative study of four African American females from low-income communities investigated college enrollment. His sample consisted of two Black females who enrolled in college after high school graduation and two who did not. Interestingly, the family interactive patterns described in the literature as supporting positive educational outcomes differed for the high-achieving students in this study. For instance, the college-bound women reported limited supervision and guidance from their families. College-bound participants interpreted the limited supervision and guidance they received as freedom to engage in independent problem solving and decision making. Although the young women were convinced they were loved, they recalled that there were rarely any open expressions of affection among family members. They also reported that the communication patterns within their families were such that they rarely had discussions about anything. The young women interpreted the lack of communication and open expressions of affection as a demand for them to be emotionally independent.

The non-college-bound women described their family systems as places of open communication and emotional support. These ladies recalled their families placing a great deal of emphasis on following the rules, which were explicit. They interpreted the structured protective environment in which they were raised as being restrictive. According to the author, the perception of being constrained cultivated a sense of insecurity and self-doubt in the two non-college bound women which he suggested may

have hindered their college enrollment. These women described their families as highly controlling and reported that their families supervised their actions too frequently.

Using the Parenting Dimensions Inventory, Bluestone and Tamis-LeMonda (1999) examined parenting and disciplinary practices in 114 working and middle class African American mothers of children aged 5-12. The authors identified a range of parenting practices used by working- and middle-class African American mothers. Contrary to popular characterizations of African American parents as primarily "power assertive," most mothers reported engaging in child-oriented approaches to discipline. The author suggested that the characterization of Black mothers as controlling is a result of studies focusing on lower-income Black families. The disciplinary strategy that was most often reported was reasoning, an approach characteristic of authoritative parenting. Physical punishment, a major component of power-assertive styles, was reported relatively in-frequently.

The findings of this section indicate that further research is needed to better understand how parenting style varies as a function of socioeconomic status for Black, White and Hispanic families.

Family structure

A great majority of the research literature to date suggests that educational outcomes vary as family structure varies. More specifically, researchers report that growing up in a non-nuclear family setting has significant negative effects on the educational success of students (McLanahan, 1985; Sandefur, McLanahan & Wojtkiewicz, 1992). For example, in Sandefur et al's (1992) study on the effects of

family type on high school graduation with a national sample of 5,246 adolescents who were living with their parents or guardians adolescents who lived in non-traditional families were found to be less likely to graduate from high school than those who lived with both biological parents. Similarly, others have found that adults who were raised by single parents experienced lower educational and occupational attainment, higher rates of teen births, and greater incidences of idleness (Krein & Beller, 1988; McLanahan & Sandefur, 1994). These findings have been replicated using several cross-sectional data sets and appear to be consistent across many racial and ethnic groups in the United States (McLanahan & Sandefur, 1994). However, these findings tell little about variation in parenting style employed by parents in diverse family formations and the relationships between parenting style and academic achievement.

Family structure is generally defined in terms of whether children live with both biological parents, with one biological and one nonbiological parent, with a single parent or with neither parent (Berger, 2007). It also occasionally includes whether the adults in two-parent families are cohabiting or married. Family structure may have both direct and indirect effects on parenting behaviors via three mechanisms: (1) financial resources, (2) the amount of time caregivers are able to devote to parenting, and (3) the willingness of caregivers to invest in children (Berger, 2007).

According to Dornbusch et al's (1987) study (discussed previously), "Single mothers and fathers showed a higher level of permissive parenting than did two natural parents...step-families tended to be more authoritarian and more permissive" (Dornbusch et al, 1987, p. 1248). Since this study found that authoritative parenting led to higher academic achievement than authoritarian and permissive parenting, it could be inferred

that respondents from single-parent and step-families more often adopted parenting styles less conducive to academic achievement than the families that consisted of both biological parents.

Using data from the National Longitudinal Survey of Youth to estimate the independent and interactive effects of income, family structure, and maternal work on measures of substandard parenting for 25,622 children under 10 years old who lived with their biological mothers, Berger (2007) found a statistically significant positive association between mother-partner families and substandard parenting. Among single-mother families, substandard parenting behaviors tended to increase with average daily maternal work hours. Results also indicated that income played a particularly strong protective role among mother-partner families; substandard parenting in these families decreased as income increased (Berger, 2007).

In a study comparing parenting and children's social, psychological, and academic adjustment across diverse family structures for 136 White 5th graders and the adults they lived with, Bronstein, Clauson, Stoll and Abrams (1993) found that the quality of parenting and family relationships was strongly associated with children's social, psychological, and academic adjustment, in both traditional and nontraditional families. Children from two-biological-parent families showed better adjustment than children from other family configurations. Ineffective parenting was significantly greater in single-mother and father-stepmother households than in traditional households. In addition, there were strong gender differences in child outcomes. For instance, girls in single-mother households showed poorer social, psychological, and academic adjustment in comparison with girls in both traditional and father-surrogate households. On the other

hand, girls in father-surrogate house-holds overall did equally as well as girls from traditional families, showed even better psychological adjustment (i.e., lower internalizing), and had the highest GPA in the entire sample. For boys, the picture was quite different; specifically, boys in father-surrogate households showed significantly poorer social, psychological, and academic adjustment than did boys from traditional households. These gender differences in outcomes suggest that the effects of living in a nontraditional household may be very different for preadolescent girls and boys.

While these findings provide evidence that disruptions in family structure are associated with more problematic parenting and poorer outcomes for children, almost all the differences in family relationships between single-mother and traditional households were accounted for by socioeconomic status, once it was entered into the analysis. These findings suggest that socioeconomic factors may have a stronger impact on the quality of parenting in single-mother households than family disruption or the absence of a partner. Similarly, in a study using archival data drawn from a racially diverse sample of Baltimore youngsters and a seasonal analysis to separate effects of economic standing from family structure, the authors found that the overall advantage in test scores for children from two-parent families were mainly a consequence of their greater family resources (Entwisle & Alexander, 1995).

Overall, the studies discussed in this subsection concur with the finding that students in nontraditional family structures are more likely to endure substandard or ineffective parenting than children in two-biological parent families. However, most studies indicate that this may be a consequence of socioeconomic status. Also, one study

suggests that the effects of living in a nontraditional household may be different for girls and boys.

Parenting Practices

The research literature on parenting practices related to student school outcomes has focused on several parenting constructs including: parenting involvement, expectations and aspirations. The following subsections present an overview of the relevant literature on these parenting practices as they relate to the school outcomes of students. It then assess whether the relationship between parenting practices and student achievement is consistent across ethnic groups, family income groups, and diverse family structures.

Parental involvement

Parental involvement includes a wide range of behaviors related to parents' use of and investment in resources associated with their children's schooling (Grolnick & Slowiaczek, 1994). These investments can take place in or outside of school with the intention of improving children's academic achievement. The research literature on parenting practices divides this construct into two primary categories: Involvement at home and involvement at school. Parental involvement at home includes discussions about school and college, homework monitoring and assistance, and engaging in achievement-training activities. Parental involvement in school includes participation as volunteers, attendance at PTO/ PTA meetings, parent initiated school communication, and attendance at school functions such as plays and sporting events. While research findings surrounding parental involvement at home report positive effects on students as

they progress through school, findings involving parental involvement at school are less straightforward.

In his book, Reginald Clark (1983) disagrees with studies that claim that “the family unit’s personnel and role properties are the source of children’s school behavior or learning outcomes” (p. 1). Instead, he argues that it is the beliefs, activities, and cultural style of family members that produce students that are mentally and behaviorally ready to engage in schooling in an effective manner. To test this hypothesis, Clark (1983) completed cases studies of ten Black families with at least one high or low achieving high school student living in three low-income communities in Chicago. After six months of casual taped interviews, participant observation, and an attitudinal questionnaire, Clark (1983) found that the parents of high-achievers performed the following parenting practices: they frequently initiated school contact, frequently engaged in both deliberate and implicit achievement-training activities, held explicit achievement-centered rules and norms, exercised firm, consistent monitoring and rule enforcement; held expectations that parent and child would both play a major role in the child’s schooling, and held the expectation that the child would obtain post-secondary training. According to Clark (1983), the families of high-achievers did most things favorably while the families of low-achievers did not perform most of the more favorable parenting practices discussed. These findings offer understanding into parenting practices that facilitate academic success. However, the results from this study do not offer insight into which behaviors significantly impact academic achievement.

In a longitudinal examination of parental involvement and school performance, Izzo, Weissburg, Kasprow, and Fendrich (1999) examined whether parental involvement

changed over time and how it related to student school performance for 1,205 urban kindergarten through third grade children for 3 consecutive years. With regard to parental involvement over time, the authors found that the frequency of parent-teacher contact, quality of parent-teacher interactions, and parental involvement in school declined from years 1 to 3. However, participation in educational activities at home showed no significant changes over time. With regard to the relationship between parental involvement and school performance, results indicated that parental involvement was related to significant improvements in school performance from year 1 to year 3. Parental participation in educational activities at home predicted academic achievement significantly more strongly than any other parent involvement variable. Shumow and Miller's (2001) study of parental involvement using a nationally representative sample of 7th and 8th grade students also found that parental involvement at home led to positive attitudes toward school, while parental involvement at school contributed to higher grades. Similarly, Meidel and Reynolds's (1999) comparison of data from interviews with the parents of 700 eighth-grade students to school performance found that students whose parents had been involved in a greater number of activities, both at home and at school, did consistently better in school.

However, other studies were unable to find significance between parental involvement at school and student achievement. For instance, in Ho Sui-Chu and Willms' (1996) comparison of parental involvement at home and parental involvement at school for a representative sample of U.S. middle school students the authors found that involvement at home was more significant to academic achievement than parental involvement at school. More specifically, parents talking with their children about school

and planning their education programs had the greatest effect on student achievement when compared to volunteering and attending school activities. Similarly, Finn's (1998) review of the literature on parental involvement found that parental involvement at home influenced academic performance more strongly than did parent involvement at school. The three types of parental involvement he found to be the most consistently related to school achievement were: assisting with homework, organizing and monitoring students time (especially related to television viewing), and talking about school issues with children. On the other hand, in a review of the research literature on the effects of parental involvement on children's academic life Moorman, Pomeranz, and Litwack (2007) noticed a distinction between the consistencies of effects of parental involvement at home on student achievement. The authors found that involvement geared towards children's intellectual enrichment indirectly related to school predicted enhanced student achievement while home involvement linked directly to school was not always beneficial. The authors call for considering the how, whom and why of parental involvement. More specifically, the authors conclude that how parents are involved, children attributes and why parents become involved are all significant to understanding the effects of parental involvement on children's academic achievement.

Fan (2001) provides further insight into specific parenting practices related to academic achievement in an investigation of the effects of parental involvement on students' academic growth in high school. Using the National Education Longitudinal Study of 1988 to follow a nationally representative sample of 24,500 8th grade students, the author found that parents' supervision, contact with school, and rules about television were related to lower academic performance, while students whose parents volunteer and

who reported higher expectations for their children's educational attainment performed better initially and accelerated faster in their academic growth. The authors suggest that parental supervision and contact with school may relate to lower performance as these actions may be triggered by students not doing well in school to begin with.

Overall, the studies in this section found that parental involvement was significant to the academic achievement of students. However, there is confusion over whether parental involvement at school is as significant as parental involvement at home. Further, some studies question whether parental involvement at school declines over time. Finally, particular parental involvement practices have been found to be negatively associated with academic performance in high school.

Parental aspirations and expectations

Several studies have examined the extent to which parental aspirations and expectations for their children's education attainment actually influence their academic achievement and educational outcomes. Parental aspirations are best described as internal representations of desired states or outcomes that parents hold for their children. These in turn organize and direct parents' behaviors toward their children (Wentzel, 1998). Parental expectations are beliefs parents hold about their children's ability to perform well academically. Expectations are related to a range of academically related outcomes. However, the research literature appears to use the two terms interchangeably.

Nevertheless, researchers have repeatedly found that parental aspirations and expectations are related to their children's academic achievement and college enrollment.

For instance, using data from the National Educational Longitudinal Study of 1988 in an investigation of the influence of parental involvement on the educational achievement of a representative sample of over 13,580 students and their parents and teachers, Catsambis (1998) found that parents' educational expectations and encouragements were the most important type of family practice that affected all measures of senior achievement. For instance, parents of 12th graders who encouraged their children to attend college positively influenced their teen's number of credits in core academic subjects completed as well as enrollment in more rigorous courses.

Similarly, in a study on the effects of home and school learning researchers found that both high expectations and aspirations of parents contributed to the academic success of students (Kellaghan, Sloane, Alvarez, & Bloom, 1993). The positive effects of parental educational aspirations and expectations are reported by a number of researchers using a variety of indicators and data sources (e.g. Astone & McLanahan, 1991; Muller & Kerbow, 1993; Sui-Chu & Willms, 1996). However, the effects of parental aspirations and expectations are not as straightforward for low-income and/ or minority students. Findings are also mixed for students in nontraditional family structures.

Parenting practice consistencies by race, ethnicity, class and family structure

Several studies have examined the extent to which parental involvement, aspirations and expectations for their children's education attainment vary by parents' ethnicity, income level and family structure. However, these findings are inconsistent and limited in scope. The following subsections will discuss these findings.

Race and ethnicity

Researchers have found that African American and Hispanic parents place a high value on education, are concerned with educational issues, and have educational aspirations for their children that equal those of nonminority parents (e.g. Stevenson et al, 1990; Wentzel, 1998). However, not all studies agree that the educational aspirations and expectations Black and Hispanic parents hold for their children positively influence educational outcomes.

While examining the achievement-related beliefs and behaviors of parents of economically disadvantaged African American youth, and the relationships between parental factors and children's academic self-concept and achievement, Halle, Kurtz-Costes, and Mahoney (1997) interviewed forty-one fourth and eighth grade students and their primary caregivers. Parents reported on their academic-related beliefs and behaviors, while children completed measures of academic self-concept and two standardized achievement tests: one during the summer and one at the end of the following school year. The authors found that parent expectations for students' futures and perceptions of their abilities were influential to student's academic achievement. In fact, these parental beliefs were more strongly linked with child outcomes than were parents' achievement-oriented behaviors and children's own beliefs about their abilities.

On the other hand, the previously discussed study by Taylor, Hinton and Wilson's (1995) which found that parenting style and involvement significantly predicted students' school grades also found that parents' expectations of their students' abilities did not significantly predict the academic outcomes of their children.

Like Taylor, Hinton and Wilson; Horn and Chen (1998) also found that parents' educational expectations for their children did not appear to significantly increase the odds of positive educational outcomes for students. The authors found that for moderate- to high-risk students parents' expectations did not influence students' likelihood of enrolling in a 4-year college in their study exploring how students deemed "at risk" of dropping out of high school managed to graduate and enroll in college despite social and educational disadvantage the National Education Longitudinal Study (NELS:88/94). However, parents' educational expectations did exert a strong influence on whether or not these teens enrolled in any postsecondary education. Even after controlling for student achievement and taking into account peer and student engagement and college preparation activities, these findings remain. The authors conclude that parents play a very influential role in getting their moderate- to high-risk teens to enroll in postsecondary education, but have less influence on whether they enroll in a 4-year college or sub-baccalaureate institution.

Using the Early Childhood Longitudinal Study Kindergarten Class of 1998-1999 data collected by the National Center for Education Statistics, Wu and Qi (2006) investigated the simultaneous and longitudinal effects of parenting practices on children's academic achievement in 2,247 African American families. From kindergarten through 4th grades data was collected via computer-assisted telephone interviews with parents, computer-assisted personal interviews, test scores, and self-description questionnaires, and self-administered questionnaires for teachers and school administrators. Consistent with Halle, Kurtz-Costes, and Mahoney's (1997) findings, results revealed that parents expectations of the educational attainment of their children and their beliefs in their

children's academic competency have the most consistent and significant effects on children's reading, math, and general knowledge or science test scores in kindergarten, first grade, and third grade. The authors conclude that the most consistent and powerful predictors of academic achievement in elementary school children are parental beliefs of their children's academic performance and abilities, and their expectations of children's future educational attainment. The authors note that, consistent with other research, family socioeconomic status proved to be the most powerful predictor of children's academic achievement in elementary school.

Using qualitative and quantitative methods Gallimore, Reese and Garnier (2001) examined the expectations and aspirations of immigrant Hispanic parents and the influence these have on children's school achievement. The authors found that Hispanic parents do hold high aspirations for their children's academic achievement. However, with regards to expectations, over the course of elementary school parents expectations fluctuated due to variations in the school performance of their children. Finally, the authors found that parental expectations did not influence children's academic achievement.

Overall, research examining the impact of parent's aspirations and expectations on the academic outcomes of students is mixed. While several studies found that parent's aspirations and expectations had some influence on the educational outcomes of children, others found that they did not significantly predict the academic achievement of students.

Socioeconomic status

In an examination of the differences in the family-school relationships between twelve working and upper-middle class families, Lareau (1989) conducted case studies on students in a working- class elementary school and students in an upper-middle class elementary school throughout their first and second grade school years. Lareau (1989) found differences in parental involvement between working and upper-middle class families and concluded that social class influenced parents' involvement in the schooling of their children. Lareau (1989) posited that students of middle-class professional parents benefited from a high degree of parental involvement both at home and in school. The relationship between the school and the working-class families and upper-middle class families, according to Lareau (1989), differed in the following four ways: (1) working-class parents believed that education was the teacher's responsibility, sought little information, and focused criticisms on non-academic matters, while upper-middle class parents believed that education was a shared responsibility between teachers and parents, were well-informed, and were very critical of school and teacher performance; (2) working-class parents rarely intervened in the child's academics, while most upper-middle class parents attempted to reinforce the curriculum at home; (3) such activities as reading to their children were less than teachers liked in working-class families, while many upper-middle class parents attempted to customize and supplement the child's education by requesting particular teachers and programs or tutoring outside school; and (4) working-class mothers were exclusively responsible for monitoring school activities, while upper-middle class fathers attended school events and took active roles in making important school-related decisions.

In a more recent study, Lareau (2003) extended the same argument: Class impacts parental involvement. Utilizing in-depth observations of Black and White middle-class, working-class, and poor families; Lareau (2003) offered depictions of two types of families. One frantically managed their children's loaded schedules of leisure activities. Lareau (2003) argued that these middle-class parents, regardless of race, engaged in a process of "concerted cultivation." In other words, instead of allowing the child to develop without interference, these parents attempted to draw out their children's talents and skills by participating and organizing their child's after school activities. The other type of family was not short on time, but was short on income. These working-class and poor families relied on "the accomplishment of natural growth." In other words, they allowed the child's development to unfold and instead focused on providing basic comfort, food, and shelter.

While Lareau (2003) heavily stressed that each approach to parenting brought its own benefits and drawbacks, she did not hide the fact that the parenting fostered by the middle-class parents helped prepare their children for white collar jobs, while the childrearing ways of the working-class and poor prepared children for employment similar to their parents. Lareau's (2003) study suggests that differences in parenting by income-strata perpetuate inequality from one generation to the next by the advantages middle-class children have through participation in extracurricular activities and engagement in critical thinking and problem solving. These findings offer major insight into the study of social stratification and family life. However, due to the dichotomous relationship between middle and working class families offered, one is unable to

recognize parenting practices performed by low-income families that *do* facilitate high-achieving, college bound students.

On the other hand, findings from Sui-Chu and Willms (1996)'s study of the effect of parental involvement on eight-grade achievement provides little support for the theory that parents with low socioeconomic status are less involved in their children's schooling than more affluent parents. However, the authors found that children's achievement and the extent their parents were involved in their schools depended on characteristics of the school. For instance, regardless of the family socioeconomic level, children scored higher in both math and reading if they attended a high SES school. Similarly, parents were more likely to volunteer or attend PTA meetings if their children attended higher SES schools, regardless of their own socioeconomic backgrounds. Similarly, Dauber and Epstein's (1993) study of parents' attitudes and involvement in inner-city elementary and middle schools found that the level of parental involvement was directly linked to the specific methods schools and teachers used to encourage involvement at school.

Yet another study offered a third explanation for parental involvement by socioeconomic status. In their research investigating parental academic involvement with a nationally representative sample of young adolescents, Shumow and Miller (2001) found that parent education level operated as a main effect and as a moderator. Parents who were high school graduates helped their children with homework more than parents who were not high school graduates; and parents who were college graduates were more involved at school than parents who were not college graduates. Similarly, McDonough's (1997) qualitative work revealed that high socioeconomic parents as well as parents who had attended college themselves were more proactive in preparing their children for

college and played a more active role in college decisions than lower socioeconomic parents. Additionally, they often encouraged students to seek coaching for standardized admissions exams and sometimes paid professional college counselors to work with their children in preparing an application portfolio and essays for college admission.

As socioeconomic status is strongly linked to parental education level as well as where parents are able to send their children to school, the research discussed above is consistent in the finding that socioeconomic level, directly or indirectly, influences the level and types of parental involvement parents utilize. However, according to Clark's (1993) study examining homework focused parenting practices and students' achievement, the way in which children spent their time at home was a better predictor of school success than parents' income or education level. High-achieving students in this study had parents who set high standards for their children's academic activities and maintained a learning-supportive home environment.

Family structure

In a study on the effects of living in a one-parent family on children achievement, Milne, Myers, Rosenthal, and Ginsburg (1986) found that the number of parents in the home and the employment status of the mother had significant effects on student achievement. Further, the effects of having two parents in the home were found to be greater for elementary students than for high school students, and were greatest for Black elementary students. Finally, the authors found that the effects of family structure were transmitted by family income.

Astone and McLanahan (1991) examined the relationship between family structure and student achievement in high school using data from the High School and Beyond study. The authors found that students who lived in single parent or step parent homes received less encouragement as well as less homework assistance than students who lived in two-biological parent families. However, these single parents spend significantly more time talking to their parents. Finally, while discrepancies in parental involvement were related to differences in children's school commitment up through senior year, they explain less than 10 percent of the difference in graduation between students from intact and nonintact families.

The two studies in this section find that family structure has a significant impact on the educational outcomes of children. However, more research is needed in this area to better understand the causes of educational outcome discrepancies between students in traditional and nontraditional family structures. While one study found the discrepancies to be a result of family income, the other came to inconclusive conclusions but noted differences in parental involvement between parents in intact and non-intact families.

Conclusion

The research literature discussed throughout this review revealed that the influence of parenting styles and practices are not consistent across families of different ethnicities. Darling and Steinberg (1993) proposed a contextual model of parenting which offers three approaches to examining why the effects of parenting style on academic achievement vary across families. The first is that parents of different ethnicities hold different educational aspirations, goals and values for their children and as a result enact

different parenting practices. For instance, parents who place importance on their children's school achievement are more likely to enact parenting practices aligned with that goal such as assisting children with their homework, maintaining contact with teachers, etc. This suggests that parents could utilize the same parenting style, but if they hold different goals for their children they will enact different parenting practices which in turn will lead to different child outcomes. However, it is evident from the research literature surrounding parental aspirations and expectations reviewed in the previous section that research findings do not support the hypothesis that these variables vary by ethnicity (e.g. Stevenson et al, 1990; Wentzel, 1998).

The next theory offered by Darling and Steinberg (1993) is that socioeconomic status moderates the relationship between parental socialization goals and parenting practices. While this hypothesis has not been tested, based on the literature reviewed earlier surrounding socioeconomic status and parenting style and practices it is evident that socioeconomic status influences the childrearing practices employed by parents either directly or indirectly. Future research is needed to examine whether socioeconomic status moderates the relationship between parental goals and parenting practices. Knowing this would offer more insight into the role of socioeconomic status in parents' socialization of school achievement.

Finally, Darling and Steinberg (1993) offered that parenting styles may serve as a moderator between parenting practices and student outcomes. This hypothesis suggests that children would reach distinct outcomes depending on the combination of parenting style and practices utilized by their parent(s). For instance, parents who engage their children in discussions about school related topics under an authoritative parenting style

may facilitate the academic achievement of their children, while parents conducting the same practice under an authoritarian or permissive parenting style may hinder the achievement of their children or have no effect. Little research has been conducted testing this hypothesis. However, the one study discussed earlier that did test this hypothesis found that parental involvement was more strongly related to academic achievement when employed under an authoritative parenting style (Steinberg, Lamborn, Dornbusch & Darling, 1992). Therefore, to better understand the discrepancies in the influence of parenting style and practices across diverse families future research is needed to investigate whether parenting style moderates the relationship between parenting practices and student achievement as well as the second hypothesis mentioned which asks whether socioeconomic status moderates the relationship between parental goals and parenting practices.

Ultimately, this study integrates aspects of the work of Darling and Steinberg (1993), and Baumrind (1991) for understanding the relationship between parenting style and practices and the college enrollment of student groups defined by race, socioeconomic level and family structure. According to Darling and Steinberg (1993), “depending on the specific developmental outcome of interest, different parenting practices would be more or less important to investigate” (1993, p. 493). Due to the integration of Darling and Steinberg’s (1993) conceptual model into the conceptual framework of this study, the developmental outcome of interest is college enrollment. Therefore, the parenting practices of interest are those related to school achievement.

This study examines two aspects of education-specific parenting practices: parental involvement at home and parental involvement in school. The *parental*

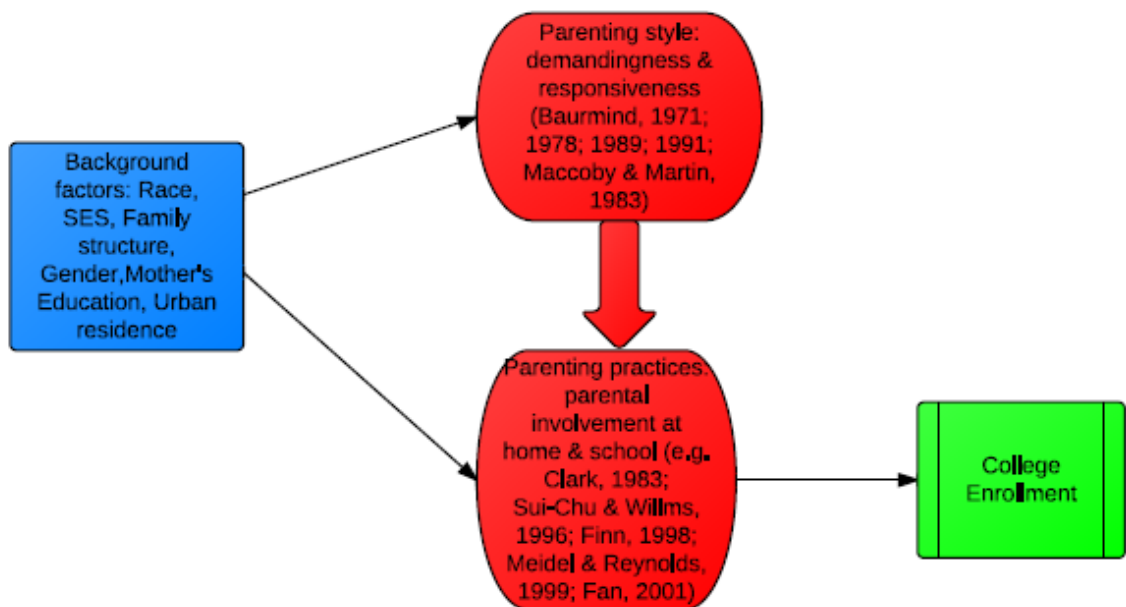
involvement at home variable identifies the extent to which parents monitor and help with students' homework, engage students in education related discussions, and give and/or limit privileges due to grades. The *parental involvement in school* variable identifies how often parents attend school events, meetings and parent-teacher conferences; how often parents volunteer at their children's schools and in their classrooms; how often parents initiate contact with teachers and/or counselors; and parents participation in the Parent Teacher Association (PTA) at their children's school.

Darling and Steinberg (1993) clarify that parenting style differs from parenting practices in that parenting practices are outcome specific, while parenting style describes parent-child interactions across a wide range of situations. According to Baumrind (1991), parenting style captures two important elements of parenting: parental responsiveness and parental demandingness. *Parental responsiveness*, or parental warmth or supportiveness, refers to "the extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" (Baumrind, 1991, p. 62). *Parental demandingness*, or behavioral control, refers to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to confront the child who disobeys" (Baumrind, 1991, pp. 61-62). Classifying parents by demandingness and responsiveness creates a typology of four parenting styles: permissive (or indulgent), authoritarian, authoritative and neglectful (or uninvolved). Darling and Steinberg's (1993) framework, which suggests examining both parenting style and practices, complemented by Baumrind's typology of parenting styles, are applied in this study to predict college enrollment (defined as

enrolling in a 2- or 4-year college or a university) for groups defined by race and ethnicity, family income and family structure.

Figure 1 is a visual representation of the conceptual framework of this study. It draws from the critical literature review above to offer a tentative theory of the relationships between the independent variables (i.e., Parenting Style; Parenting Practices; and Background Factors) and the dependent variable (i.e., College Enrollment). Moreover, the conceptual framework draws largely upon the work of Darling & Steinberg (1993) and Baumrind (1991) to inform the research questions and methodology of the study.

Figure 1: Conceptual Framework



CHAPTER 3: METHODS

The present analysis focused on how race, ethnicity, family structure and family income shape the relationship between parenting practices and parenting style and the probability of college enrollment for children. The research literature discussed in the previous chapter revealed that the influence of parenting styles and practices is not consistent across families of different ethnicities, incomes and family structures. Darling and Steinberg's (1993) contextual model of parenting offers three approaches to examining why the effects of parenting style and practices on academic achievement are not consistent across all family types. They are: 1) different race and ethnicities hold differential educational aspirations, 2) socioeconomic status moderates the relationship between parental socialization goals and parenting practices, and 3) parenting styles serve as a moderator between parenting practices and student outcomes.

The analysis reported here tested the two explanations offered by Darling and Steinberg (1993) that had not been thoroughly investigated previously in order to better understand the differing effects of parenting style and practices on the college enrollment of minority children in diverse family types at varying income levels. The data and measures presented in this chapter were appropriate for the analysis for several reasons. The data source included longitudinal data from the birth of respondents and every other year through 2006. This allowed for detailed, comprehensive information on the adolescent years of each respondent. Also, due to the large sample size this study was able to compare race and ethnicity, family income and family structure groups. Additionally, the data source provided good measures on a plethora of variables needed to examine differences in parenting practices and styles by race, ethnicity, income and family structure.

Sample and Data Source

Data from the Young Adult children of the women of the National Longitudinal Survey of Youth 1979 was used to address the four research questions. The NLSY79 is a multi-purpose panel survey that originally included a nationally representative sample of 12,686 men and women who were between the ages of 14 to 21 years of age on December 31, 1978. Annual interviews were completed with most of these respondents since 1979, with a shift to biennial interviews after 1994. The NLSY79 contains extensive information about the employment, education, training, and family experiences of the respondents.

Starting in 1986, a separate survey began, which collected information on all children born to NLSY79 mothers biennially. The assessments measure cognitive ability, temperament, motor and social development, behavior problems, and self-competence of the children as well as the quality of their home environment. Since 1988, children age 10 and over have completed personal interviews about a wide range of their schooling, family, peer-related and other attitudes and behaviors. Starting in 1994, children ages 15 and older began to complete a young adult supplement, replacing the child supplement for these individuals. This supplement collects information on the work experiences, training, schooling, health, fertility, attitudes and relationships of these young adults. Longitudinal child (ages 10-14) and young adult (ages 15 and up) data, coupled with information on NLSY79 mothers, offer a unique opportunity to examine the linkages between specific parenting styles and practices and subsequent college enrollment.

Beginning in 1994, the young adult instruments were administered using computer assisted personal interviewing (CAPI). By 2000, all survey instruments were fully computerized. From 1994-1998, information was mostly collected via in-person

interviews. However, beginning in 2000, interviews were mostly conducted via telephone rather than in-home visits.

As of 2006, a total of 5,844 young adults (participants age 15 and over) were interviewed out of the 6,868 children over age 15 born to NLSY79 mothers for a response rate of 85.1%. Only child and young adult data of participants who were interviewed in 2006 when they were ages 20-24 are used for this study (2116 cases).

The original cohort of mothers of 1979 identified their race and ethnicity and the race and ethnicity of their children by choosing from one of the following options: Black, Hispanic and White, therefore subjects in this study are limited to these three racial and ethnic groups. The sample of the present study consists of 504 Hispanic, 728 Black, and 884 White respondents between the ages of 20-24 as of December 31, 2006. Also, because families have great variety with respect to family structure, child-parent pairs for this study were restricted to children in single-mother, dual parent (either with biological or step- father) and families that have experienced at least one transition while the child was between the ages of 10-14 to make the three racial and ethnic groups more comparable. The sample consists of 1173 (55.4%) dual-parent families, 496 (23.4%) single-mother families, and 447 (21.1%) families that have experiences at least one transition. The total sample of the present study consisted of 2116 respondents between the ages of 20-24 as of December 31, 2006. Forty three percent (n=925) of the total sample had enrolled in college at some point as of December 31, 2006 while 56.3 percent (n=1191) had not (information in this section obtained from the U.S. Department of Labor, 2009).

Research Questions

Four research questions guided this study to examine the relationships between parenting style, parenting practices and the likelihood of enrolling in college. A further goal of this study was to examine the extent to which those relationships varied by race and ethnicity, family income and family structure, when gender, region and mother's education were controlled.

- Research Question 1: What is the relationship between parenting style, parenting practices and the likelihood of enrolling in college after controlling for gender, urban or rural residence, mother's education, race and ethnicity, family income and family structure?
- Research Question 2: To what extent does the relationship between parenting style, parenting practices and the likelihood of enrolling in college vary by race and ethnicity after controlling for gender, urban or rural residence, mother's education, family income and family structure?
- Research Question 3: To what extent does the relationship between parenting style, parenting practices and the likelihood of enrolling in college vary across family income levels after controlling for gender, urban or rural residence, mother's education, race and ethnicity and family structure?
- Research Question 4: To what extent does the relationship between parenting style, parenting practices and the likelihood of enrolling in college vary by family structure after controlling for gender, urban or rural residence, mother's education, race and ethnicity and family income?

Variables/ Measures

In logistic regression models, encoding most of the variables as dummy variables allows easy interpretation and calculation of the odds ratios, and increases the stability and significance of the coefficients. A dummy variable is one that takes the values 0 or 1 to indicate the absence or presence of some categorical effect that may be expected to alter the outcome. The following subsections explain how the variables in this study were coded.

The Dependent Variable

The dependent variable for college enrollment was a dummy variable equal to 1 if the respondent reported that s/he never enrolled in college and 0 otherwise.

Independent Variable

The parenting style employed by parents was determined based on parent scores on measures of demandingness and responsiveness. Youth's responses to the following two questions were used to measure parents' demandingness: Are there any rules about doing homework, and are there any rules about keeping your parent(s) informed about where you are/ your whereabouts? A yes response was represented by a 1, and a no response was represented by a 0 resulting in a 0-2 demandingness range. Youth responses to the following two questions were used to measure parents' responsiveness: How much say in keeping parents informed of whereabouts, and how much say in doing homework do you have? Respondents answered these questions using the following scale: 0: No say, 1: A little say, 2: Some say. 3: A lot of say. This type of scale created a 0-6 responsiveness range. The two measures were combined to create the following four parenting style groups:

- permissive = high responsive (4-6) + low demanding (0 or 1)
- authoritarian = low responsive(0 or 1) + high demanding (2)
- neglectful = low responsive (0 or 1) + low demanding (0 or 1)
- authoritative = high responsive (4-6) + high demanding(2)

The four parenting styles above were represented by three dummy variables and the authoritative group as the referent group. The number 1 indicated the parenting style category respondents belong to, while all the other parenting style categories for the respondent were coded 0.

The second set of independent variables consisted of two measures of parenting practices vis-à-vis their child's education: parental involvement at home and parental involvement in school. *Parental involvement at home* measured the extent to which parents were involved in the education of their children outside of school. This was rated based on youth responses to the following questions:

- How often do parent (s) check that homework is done (when respondent was below age 15)
- How often do parent (s) check that homework is done (when respondent was 15 or older)
- How often do parent (s) help with homework (when respondent was below age 15)
- How often do parent (s) help with homework (when respondent was 15 or older)
- How often do parent (s) give you privileges for grades
- How often do parent (s) limit privileges due to grades
- How often do parent (s) discuss school activities
- How often do parent (s) discuss class subjects
- How often do parent (s) discuss grades
- How often do parent (s) discuss course selections
- How often do parent (s) discuss going to college

Youths' responses to how often parents checked and helped with homework when respondents were younger than 15 were answered using the following scale: 0: Never, 1: Less than once a month, 2: 1-2 times a month, 3: 1-2 times a week, 4: Almost every day, 5: Every day. Teacher/school does not give homework (too young) responses were coded as missing values so they would not unduly inflate scores. Youths' responses to how often parents check and help with homework when respondent was 15 or older were answered using the following scale: 0: Never, 1: Rarely, 2: Sometimes, 3: Often.

Responses to whether parents give/ limit privileges due to grades were answered using the following scales: 0: No, 1: Yes, or 0: Never, 1: Rarely, 2: Sometimes, 3: Often. To remain consistent, responses using the 0-3 scale were converted to the 0-1 scale. This was

done by recoding all “sometimes and often” responses as “yes,” which are represented by a 1; and all “rarely and never” responses as “no,” which are represented by a 0.

Finally, the extent to which parents discuss school, class, grades, courses and college were answered using the following scale: 0: Never, 1: Rarely, 2: Sometimes, 3: Often.

The sum of the parental involvement at home scores range from 0-33, with 0 as the lowest and 33 as the highest.

Parental involvement in school measured the extent to which parents were involved in the education of their children during school hours. Parental involvement at school was measured based on youth and parent responses to the following items:

1. How often did your parent(s) attend school events during the first half of this school year?
2. How often did your parent(s) attend school meetings during the first half of this school year?
3. How often did your parent(s) volunteer at school during the first half of this school year?
4. How often did your parent(s) contact a teacher or counselor during the first half of this school year?
5. Do you (or your spouse) participate in the parent-teacher organization at your child's school?
6. Do you (or your spouse) volunteer in your child's classroom?
7. Do you (or your spouse) do volunteer work such as supervising lunch, chaperoning a field trip at your child's school?
8. Do you (or your spouse) attend parent-teacher conferences?

Youths' responses to how often parents attended school events and meetings, volunteered at school, and contacted a teacher or counselor were answered using the following scale: 0: Never/ almost never, 1: 1-2 a term. 2: once a month, 3: more than once a month. Parent's responses to whether they participate in the PTA or PTO, volunteer in classroom, chaperone or attend parent-teacher conferences were answered

using the following scale: 0: No, 1: Yes. The sum of the parental involvement in school scores range from 0-16.

The next set of independent variables was designed to indicate the race of the child. This variable consists of two dummy variables representing Black and Hispanic with White as the referent group. The number 1 indicated the racial or ethnic category respondents belong to, while all the other categories for the respondent were coded 0.

The fourth independent variable was a measure of family income. According to Haveman, Wolfe and Spalding (1991), economic status during adolescence is a more important predictor of a child's educational attainment than economic status during early childhood. Therefore, this study used a family income measure, which is an average of the family income while the child was 10-14 years old. The family income range for this sample was between \$0 and \$1,105,603.50 per year. Based on the sample distribution, a low family- income was one below \$19,823.99. A middle family-income fell between \$19,824 and \$42,089.99. Finally, a high family-income was above \$42,090.00 per year.

The final independent variable indicated the family structure of the child. More specifically, this variable represents whether the child lived in a stable two-parent family between the ages of 10-14, lived in a stable single-mother family between ages 10-14, or experienced at least one transition between the ages of 10-14 (unstable). While family structure measured current family membership, family transitions measured changes in family living experienced by children over a period of time such as experiencing a divorce, remarriage, or cohabitation (Brown, 2006). Family structure was represented by two dummy variables with dual-biological parent families as the referent group. The number 1 indicated the family structure category respondents belong to, while all the

other categories for the respondent were coded 0. It is worth noting that the latter two background constructs were strongly correlated. As dual-parent families have the ability to provide two sources of income, higher income levels are more often associated with dual-parent families while lower income levels are more often associated with single-parent families.

Control Variables

Place of residence during high school has been found to impact college enrollment. For instance, Beattie (2002) found differences between the college enrollments of students who lived in states with higher returns to postsecondary education as well as between students who lived in states with higher per-capita income. More specifically, the author found that students who lived in states with higher returns to postsecondary education were more likely to enroll in college. Similarly, she found that higher per-capita income in a state also lead to increased odds of college enrollment, whereas higher college costs diminished the likelihood of attending college. Further, Beattie (2002) found that income returns to schooling mattered differently for Blacks than they did for other racial and ethnic groups as well as residing in states with different college costs. As a result, residential location during high school was held constant so it would not influence the dependent variable. This was represented by one dummy variable with respondents residing in an urban area as the referent group. The number 1 indicated the residence category respondents belong to, while the other category for the respondent was coded 0.

Also influencing college enrollment is a child's gender. Education trends show that women are more likely to graduate from high school, enroll in and complete college than

males. For instance, a recent report from College Board revealed that in 2008, 66% of males and 72% of females who had completed high school in the past year were enrolled in college. Similarly, the report indicates that among Blacks, Whites, and Hispanics, larger percentages of women than of men between the ages of 25 and 29 had bachelor's degrees in 2009 (Baum, Ma, and Payea, 2010). Therefore, the gender of respondents in the sample were held constant so that the dependent variable was not influenced. This was represented by one dummy variable with male referent group. The number 1 indicated the gender respondents indicate, while the other gender option for the respondent was coded 0.

The final control variable indicated whether the child's mother obtained a college degree or not as this has been found to impact both parenting practices employed and children's college enrollment. For instance, a recent College Board (2010) report indicates that mothers who completed a bachelor's degree were more likely to read to their children, and more frequently participate with their children in numerous activities such as going to the library. Maternal college attendance has also been found to impact students' college aspirations. For instance, Kao and Tienda (1998) found that eighth grader's aspirations to attend college originated primarily from their parent's education and family background. Due to these findings, mother's education level was held constant. This was represented by two dummy variables (some high school and graduated high school) with "some college" as the referent group. The number 1 indicated the education category respondents belong to, while all the other categories for the respondent were coded 0.

Data Analysis

The first part of the analysis was inferential in nature, involving measuring the association between variables and comparing the group effects. This was done by examining bivariate tables of the independent and control variables by the dependent variable.

Since the relationships observed in the bivariate analysis varied by race and ethnicity, multivariate logistic regression was used to analyze the effect(s) of parenting style and practices on college enrollment by race, family income and family structure. Pedhazur (1997) discussed the applicability of using regression analysis when the objective of the study is to better understand how a set of descriptors explains an outcome. As this study attempted to better understand how parenting style and practices predict college enrollment, using regression analysis was appropriate. Further, Menard (2002), Pampel (2000) and Pedhazur (1997) recommend using logistic regression analysis when the dependent variable is dichotomous, or when there are two possible outcomes. In this study, the outcome variable was college enrollment, a dichotomous variable. As a result, logistic regression was an appropriate method for this analysis. Logistic regression assisted in better understanding the relationship between the set of independent variables (parenting style, practices, race, family income, and family structure) and the dichotomous dependent variable (college enrollment).

The logistic regression assessed whether each of the five predictor variables (race, family structure, income, parenting style, and parenting practices) significantly predicted whether children enrolled in college by 2006. The final analysis tested for statistically significant interactions between variables. To account for possible confounding elements in this study, several other variables were examined in minor analyses. These were the

control variables discussed in the previous section.

Strengths and Weaknesses

One of the strengths of the methodological design laid out in this section is the use of logistic regression. Logistic regression is ideal for situations where one seeks to predict whether something "happens" or not, such as whether a student enrolls in college or not and other binary outcome measures. Logistic regression is particularly useful where the dataset is large, and the predictor variables do not behave in orderly ways, or obey the assumptions required of discriminant analysis. The use of logistic regression allowed this study to ask questions that would not have been examined as effectively using other methods.

While the benefits of logistic regression are numerous, it has its drawbacks. For instance, logistic regression results are slightly mystifying, since the original variable of interest (college enrollment) disappears and is replaced by the logit. However, converting logit values into probabilities alleviated the complexity of analysis using this method in this study.

Aside from the complexity of using logistic regression to ask how parenting influences college enrollment, this study was also limited by its narrow definition of a parent. While this study examined parenting, most of the data come from mothers or children about their mothers. While this analysis makes inferences about single-mothers and mother-father/ stepfather families, it is not able to do so for single-father families as the surveys focusing on children and young adults only follow women. In other words, the sample includes children born to the original 1979 sample of women and continues to

collect information on these children biennially as long as they are still living with their mothers; children who move with their fathers are dropped from the sample.

CHAPTER 4: RESEARCH RESULTS

The purpose of this study was to investigate the relationship between parenting style, parenting practices and college enrollment, and how they might vary by race and ethnicity, family income and family structure after controlling for gender, urban or rural residence and mother's education. Four research questions guided this study. After an overview of the overall sample and an overview by race, this chapter discusses the research findings related to each of the four research questions.

Sample Profile

Data from all children of the original National Longitudinal Survey of Youth 1979 (NLSY79) cohort of mothers were gathered by the Bureau of Labor Statistics and Ohio State University. Extensive information on those who were between the ages of 20 and 24 in December 2006 was used to explore the differences, using research supported predictors, between groups. Research supported predictors of college enrollment gathered for this study consisted of three classes of variables: parenting, background and control variables. Information on parenting includes: 1) parenting style (neglectful, permissive, authoritarian and authoritative) and 2) parental involvement in school-related activities both at home and at school. Background information included race and ethnicity, family structure, and family income. Controls included mother's education, gender and urban residence. Bivariate and logistic regression analyses were performed to identify predictors of college enrollment for each race and ethnicity, family income, and family structure.

Table 2 displays the distribution of each variable for the entire sample, and for the three subgroups: Hispanics, Blacks, and Whites. Of the 2,116 respondents, approximately 24 percent were Hispanic, 34 percent Black and 42 percent White. The most popular parenting style was the authoritative parenting style, which consisted of approximately 60 percent of the sample. Hispanic respondents were most likely to have parents who adopted this style followed by Blacks and then Whites. Mostly authoritarian parents made up approximately 33 percent of the overall sample. White respondents were most likely to have authoritarian parents followed by Black and Hispanic respondents respectively. Neglectful and permissive parenting styles were less prevalent amongst respondents' parents as they only made up about 6 percent of the overall sample. More specifically, parents who adopted a mostly neglectful parenting style made up 2.2 percent of the overall sample. Black respondents were almost twice as likely to have neglectful parents as both Hispanics and Whites. Parents who adopted a mostly permissive parenting style made up 4.3 percent of the overall sample. Again, Black respondents were the most likely to have parents who adopted this parenting style followed closely by Whites.

Table 2: Variable Means/ Proportions, Total and by Race and Ethnicity

	Total	Hispanic	Black	White
Race and Ethnicity				
Hispanic	23.8	---	---	---
Black	34.4	---	---	---
White	41.8	---	---	---
Parenting Style				
Neglectful	2.2	1.8	2.7	1.9
Permissive	4.3	3.4	4.7	4.5
Authoritarian	33.4	29.4	31.5	37.2
Authoritative	60.2	65.5	61.1	56.3
Parental Involvement				
Home (0-33)	15.4	14.9	16.1	15.2
School (0-16)	6.6	6.0	7.0	6.6

Average Family Income	45.5	45.8	29.0	59.0
Low Family-Income	29.4	28.0	44.6	17.6
Middle Family-Income	28.6	29.8	30.8	26.1
High Family-Income	42.0	42.3	24.6	56.2
Family Structure				
Single Mother	23.4	17.5	42.9	11.0
Transition	21.1	25.1	38.0	36.9
Dual Parent	55.4	26.0	21.0	53.0
Mother's Education	12.3	11.6	12.4	12.7
Female	52.6	47.6	56.0	52.5
Urban	77.3	90.2	81.2	66.8
N	2116	504	728	884

The parental involvement at home variable was a scale that ranged from 0 to 33. The mean score of the entire sample was 15.4. While the mean Black score was above the overall mean, Whites scored slightly lower than the mean and Hispanics scored even lower. The parental involvement at school variable was a scale that ranged from 0 to 16. The mean score of the overall sample was 6.59. As with the involvement at home scale, the mean Black score on the involvement at school scale was above the overall mean, Hispanics scored below the mean and Whites scored right at the mean.

The mean family income for the overall sample was \$45,500. The mean family income for Hispanic respondents was a little higher than the overall mean, while the mean family income of Whites was over \$10,000 higher than the mean. The mean family income for Black respondents was less than half that of Whites. While over 40 percent of White and Hispanic respondents fell within the high family-income range, over 40 percent of Black respondents fell within the low family-income range. Additionally, Blacks were almost three times as likely to be in single-mother families as both White and Hispanic respondents. Blacks were also most likely to have experienced a family transition, followed closely by Whites. Whites were twice as likely to be in dual-parent families as either Hispanic or Black respondents.

With regards to the control variables, the mean level of respondents' mother education was approximately 12 years, or a high school diploma. While Whites and Blacks scored above the mean, Hispanics scored below the mean. Approximately 53 percent of the sample consisted of female respondents. For Blacks, the percentage of female respondents was higher than the mean percentage. The percentages of Hispanic and White female respondents were 48 and 53 percent respectively. Finally, over 77 percent of the respondents resided in an urban area. However, these figures differed drastically by race and ethnicity. For instance, while only 67 percent of White respondents reported residing in an urban area, 81 percent of Black and 90 percent of Hispanic respondents reported living in such areas.

Table 3 displays the differences in college enrollment by race and ethnicity. Overall, approximately 50 percent of Whites enrolled in college, while only 38 percent of Hispanics or Blacks did so. According to the bivariate analysis, overall, the best predictors of college enrollment by each variable were as follows: Respondents of authoritarian parents, respondents with parents who scored high on parental involvement both at home and at school, respondents with a high family income, respondents of dual-parent families, respondents with mothers with at least some college, respondents who were female and those who resided in a non-urban area. By race and ethnicity, these predictors were consistent, for the most part. However, inconsistencies existed for the family structure and urban residence variables.

Table 3: Percent Attending College by December 2006				
	Total % Enrolled	Hispanic	Black	White
Race and Ethnicity				
Hispanic	38.3	---	---	---
Black	37.9	---	---	---
White	51.6	---	---	---
Parenting Style				

Neglectful	34.8	33.3	25.0	47.1
Permissive	34.1	35.5	23.5	42.5
Authoritarian	50.0	48.6	45.0	54.1
Authoritative	41.2	33.9	36.0	50.8
Parental Involvement				
Low Home	34.6	27.4	29.4	42.6
Medium Home	47.1	45.5	37.4	55.0
High Home	49.6	45.7	44.1	58.1
Low School	34.3	34.0	33.0	35.6
Medium School	43.2	38.9	38.3	49.4
High School	47.8	39.9	39.0	59.4
Family Income				
Low Family Income	27.0	22.0	24.9	35.9
Middle family Income	39.5	39.3	42.4	36.8
High Family Income	58.3	48.4	55.9	63.4
Family Structure				
Single mother	34.5	25.3	35.9	38.1
Transition	34.7	31.1	32.9	38.8
Dual-parent	51.1	44.6	43.9	57.1
Mother's Education				
Some High School	21.3	25.0	16.8	22.1
High School Complete	40.5	34.5	36.3	46.6
At least Some College	60.8	57.6	52.4	68.6
Gender				
Female	49.4	42.5	47.1	55.0
Male	37.5	34.5	26.3	47.9
Residence				
Urban	43.2	37.5	38.2	52.6
Non-urban	44.6	47.9	35.6	48.3
Total	43.7	23.8	34.4	41.8

According to the overall bivariate analysis in Table 3, respondents in single-mother families were less likely to enroll in college than respondents from transition families who were in turn less likely to enroll than students from dual-parent families. While this pattern was consistent for Whites and Hispanics, bivariate results for Blacks revealed that respondents from transition families were less likely to enroll in college than Black respondents from single-mother families. Additionally, while the overall bivariate analysis as well as the analysis for Hispanic respondents revealed that respondents residing in urban areas were less likely to enroll in college than their non-urban residing counterparts, the analysis for White and Black respondents revealed that

residing in an urban area was more conducive to college enrollment. For instance, 53 percent of White respondents who resided in an urban area enrolled in college compared to 48 percent of Whites who resided in non-urban areas.

As supported by the research literature and expected by the researcher, bivariate analysis results confirmed that Black families acquired significantly lower mean family incomes than Whites and Hispanics. Bivariate analyses also revealed that Black respondents were more likely to be raised in single-mother and transition families. On the other hand, in contrast to the research literature, bivariate analyses from this study revealed that respondents with mostly authoritarian parents were more likely to enroll in college than those with mostly authoritative parents. Additionally, while bivariate findings revealed that Whites were 1.5 times more likely to enroll in college than Blacks and Hispanics, they also revealed that Blacks scored higher on both the parental involvement at home and at school scales. Based on the research literature, it was expected that family income, family structure, parenting style and parental involvement both at home and school would have significant effects on the likelihood of college enrollment. As these variables differed by race and ethnicity, multivariate analyses were needed to address the research questions appropriately.

Research Question 1

What is the relationship between parenting style, parenting practices and the likelihood of enrolling in college after controlling for gender, urban residence, mother's education, race and ethnicity, family income and family structure?

The first research question sought to find differences in the likelihood of college enrollment between students whose parents adopted different parenting styles (mostly neglectful, permissive, authoritarian or authoritative) and had different levels of

involvement in their children's schooling at home and at school (parenting practices) while holding all other factors constant. Using the data file consisting of all respondents, a logistic regression model was estimated using the background, parenting and control variables as predictors. The final model is reported in Table 4 in the column entitled Model 1.

Table 4: Logistic Regression Results Predicting College Enrollment by Race and Ethnicity (Odds Ratio)								
	Model 1		Hispanic		Black		White	
Intercept	0.005	*	0.015	*	0.001	*	0.002	*
Race and Ethnicity (ref White)	*							
Hispanic	0.835		---		---		---	
Black	0.691	*	---		---		---	
Parenting Style (ref authoritative)	*							
Neglectful	1.237		3.619		0.972		1.263	
Permissive	0.921		1.480		0.527		1.006	
Authoritarian	1.288	*	1.739	*	1.260		1.115	
Parental Involvement								
Home	1.073	*	1.109	*	1.088	*	1.048	*
School	1.028		0.979		0.985	^	1.111	*
Family Income	1.005	*	1.004	*	1.023	*	^	1.002
Family Structure (ref dual-parent)								
Single mother	0.880	*	0.508	*	1.340		0.579	*
Transition	0.692	*	0.606	*	0.965		0.553	*
Mother's Education	1.277	*	1.168	*	1.219	*	1.403	*
Female	1.784	*	1.464		2.839	*	^	1.394
Urban	0.984		0.738		0.805		1.060	

* indicates the coefficient is significant at the .05 alpha level

^ indicates there is a significant interaction between the two variables

The only parenting predictors in these two categories to make a statistically significant contribution in explaining the variance in college enrollment after holding all other factors constant were authoritarian parenting and parental involvement at home. The results revealed the following about the relationship between parenting factors and college enrollment: Respondents with parents who adopted a mostly authoritarian parenting style were 1.3 (increase of 29%) times as likely to enroll in college as respondents of mostly authoritative parents (the reference category), with all other factors

being equal. Due to the extremely small sample of respondents with parents who were mostly neglectful or permissive, this study focused only on the authoritative and authoritarian parenting styles.

With regard to parental involvement, results indicated that each one-unit increase on the parental involvement at home scale increased the odds of enrolling in college by over 7 percent, holding all other factors constant. Although not statistically significant, results for parental involvement at school indicated that each one-unit increase on the involvement at school scale increased the odds of enrolling in college by 3 percent, holding all other factors constant.

A separate analysis examining the interaction between parenting style and parenting practices was not statistically significant. This result does not support Darling and Steinberg's (1993) hypothesis that parenting style works as a moderator of parenting practices to predict child outcomes.

Research Question 2

To what extent does the relationship between parenting style and practices and the likelihood of enrolling in college vary by race and ethnicity after controlling for gender, urban residence and mother's education, family income and family structure?

The second research question sought to find differences in the effects of the parenting factors on the likelihood of college enrollment among Hispanic, Black and White students. Table 4 displays the results of the logistic regression analysis for Hispanic, Black and White respondents respectively. Logistic regression models were estimated using three classes of variables as predictors. These predictor variables include parenting, background, and control variables.

The first class of variables includes parenting style (neglectful, permissive, authoritarian and authoritative), parental involvement at home and parental involvement at school (parenting practices). The results revealed that the likely reason for the overall significant effect of the mostly authoritarian parenting style was due to its effects on Hispanic children, who were 74 percent more likely to enroll in college than those of mostly authoritative parents, while the relationship between authoritarian parenting and college enrollment was much weaker for Black children (26% more likely than those who experienced authoritative parenting) and White children (12% more likely). Further, results only reached statistical significance for Hispanic respondents. However, none of the differences between any of the race or ethnic groups and the two other groups attained statistical significance (i.e. Hispanics compared to Whites and Blacks).

Results for the parental involvement at home variable were statistically significant for each of the race and ethnicity groups. While higher scores on the parental involvement at home variable resulted in higher likelihoods of college enrollment for the total sample, when compared against Whites (the referent group) the odds of college enrollment for Hispanic and Black respondents were higher than that of Whites, although the differences between groups were not statistically significant. More specifically, each one-unit increase on the parental involvement at home scale increased the odds of enrolling in college by 11 percent for Hispanic respondents, 9 percent for Black respondents, and only 5 percent for White respondents, holding all other factors constant. Findings for the variable parental involvement at school also differed by race, and in this case, significantly so. The odds of college enrollment for Black and Hispanic respondents decreased slightly with higher scores on the involvement at school scale while each one-

unit raise increased White respondents' odds of enrolling in college by 11 percent, holding all other factors constant. Results for the parental involvement at school variable only reached statistical significance for Whites. Further, the difference between the effect of involvement at school for Blacks and the other two race groups on college enrollment attained statistical significance. Thus there was a significant negative interaction between being Black and increased parental involvement at school.

The second class of variables includes family income and family structure. The relationship between family income and college enrollment was positive for both minority race and ethnicity groups, but for Whites, income made no significant difference on college enrollment. More specifically, each \$10,000 increase in family income increased Hispanic respondents' odds of enrolling in college by 4 percent, Black respondents odds increased by 23 percent and Whites by 2 percent, holding all other factors constant. Additionally, there was a significant positive interaction between family income and being Black. These results indicated that low incomes were less of an impediment to college enrollment for Whites than for Blacks.

The relationship between being raised in a single-mother or transition family versus a dual-parent family and college enrollment was negative for all respondents except Blacks in single-mother families. The results revealed that the odds of enrolling in college for respondents raised in single-mother homes decreased by 49 percent for Hispanics and 42 percent for Whites but increased by 34 percent for Blacks, with all other factors being equal. Similarly, the odds of college enrollment for respondents who experienced at least one transition were lower than that of respondents raised in dual-

parent homes by 39 percent for Hispanics, 4 percent for Blacks and 45 percent for Whites. Results only reached statistical significance for White respondents.

The final class of variables includes mother's education, gender and urban or rural residence. The relationship between mother's level of education and college enrollment was positive and statistically significant for all race and ethnicity groups. More specifically, each additional year of education a respondent's mother possesses increased his or her odds of enrolling in college by 17 percent for Hispanics, 22 percent for Blacks and 40 percent for Whites, holding all other factors constant. Similarly, being female was positively associated with college enrollment for all respondents, but only reached statistical significance for Blacks and Whites. Results indicated that Hispanic, Black and White female respondents were 46, 184, and 39 percent more likely to enroll in college than Hispanic, Black and White male respondents respectively. Also, results indicated a significant positive relationship existed between being Black and being female on college enrollment. Finally, overall, residing in an urban area was not associated with college enrollment. However, when examined by race and ethnicity residing in an urban area was associated with college enrollment for Whites. More specifically, Whites who resided in an urban area were 6 percent more likely to enroll in college than Whites who did not reside in urban areas. On the other hand, Hispanics and Blacks in urban areas were 26 and 20 percent less likely to enroll than Hispanics and Blacks in non-urban areas. Results for the variable urban residence did not reach statistical significance for any of the race and ethnicity groups.

Research Question 3

To what extent does the relationship between parenting style and practices and the likelihood of enrolling in college vary across socioeconomic levels after controlling for gender, region and mother's education, race and ethnicity and family structure?

The third research question sought to find differences in the effects of the parenting factors on the likelihood of college enrollment across family income levels. Table 5 displays the results of the logistic regression analysis for low-income, middle-income, and high-income respondents respectively. A logistic regression model was estimated using three classes of variables as predictors, which include parenting, background, and control variables using the data file consisting of only low-income respondents, only middle-income respondents and only high-income respondents. This table shows that unlike race and ethnicity, there were no interactions in the effects of the other predictors of college enrollment by family income. This may be due to the small sample sizes of some of the groups. In order to identify differences that might be significant in a larger sample, the results are detailed below.

Table 5: Logistic Regression Results Predicting College Enrollment by Family Income (Odds Ratio)

	Low		Middle		High	
Intercept	0.021	*	0.011	*	0.002	*
Race and Ethnicity (ref White)						
Hispanic	0.515	*	1.400		0.728	
Black	0.509	*	1.062		0.655	*
Parenting Style (ref authoritative)						
Neglectful	0.903		1.358		1.877	
Permissive	0.371	*	2.558		1.165	
Authoritarian	1.195		1.268		1.319	
Parental Involvement						
Home	1.056	*	1.075	*	1.084	*
School	1.064		1.008		1.028	
Family Structure (ref dual-parent)						
Single mother	0.774		1.022		1.162	
Transition	0.635		0.733		0.695	
Mother's Education	1.136	*	1.156	*	1.389	*
Female	1.882	*	1.894	*	1.758	*

Urban	0.890	1.013	0.946
* indicates the coefficient is significant at the .05 alpha level			
^ indicates there is a significant interaction between the two variables			

Results for the parenting variables were consistent by family income. For instance, low, middle and high family income respondents were all more likely to enroll in college if their parents adopted a mostly authoritarian parenting style. Respondents with low, middle and high family incomes were 20 percent, 27 percent, and 32 percent as likely to enroll in college as respondents with mostly authoritative parents, with all other factors being equal. Parenting style results do not reach statistical significance for any of the family-income groups.

Similar to the results for parenting style, parental involvement results for low, middle and high family income respondents were consistent. Higher scores on both the involvement at home and at school variables were associated with higher likelihoods of college enrollment for the three family –income groups. More specifically, low, middle and high family income respondents’ odds of enrolling in college increased by 6, 8 and 8 percent respectively for each one unit increase on the involvement at home scale, holding all other factors constant. Similarly, low, middle and high family income respondents’ odds of enrolling in college increased by 6, .8 and 3 percent respectively for each one unit increase on the involvement at school scale, holding all other factors constant. Results reached statistical significance for the variable involvement at home for all levels of family-income. Parental involvement at school did not reach significance for any of the family-income groups.

The second class of variables includes race, ethnicity and family structure. Results revealed that Hispanic and Black low family-income respondents were 49 percent less

likely to enroll in college than White low-income respondents, holding all other factors constant. Interestingly, results revealed that Hispanic and Black high family-income respondents were also less likely to enroll in college than White high family-income respondents, but Black and Hispanic middle family-income respondents were 6 and 40 percent as likely to enroll in college as White middle family-income respondents. Results only reached significance for low income Hispanic and Black respondents and high income Black respondents.

Results for the family structure variables revealed that low-family income respondents in single-mother homes were 23 percent less likely to enroll in college as low-income respondents in dual-parent homes. Meanwhile, middle and high family-income respondents in single-mother homes were 2 and 16 percent more likely to enroll than middle and high-income respondents from dual-parent families, holding all other factors constant. In addition, respondents from transition families at all family-income levels were around 30 percent less likely to enroll in college than respondents from dual-parent families. Results for these variables did not reached statistical significance for any of the family-income groups.

The final class of variables includes mother's education, gender and urban residence. The association between mother's level of education and college enrollment was positive and reached statistical significance for all family-income groups. More specifically, each additional year of education a low, middle or high family-income respondent's mother possesses increased his or her odds of enrolling in college by 14, 16 and 39 percent respectively, holding all other factors constant. Similarly, the relationship between being female and college enrollment was positive and statistically significant for

all family-income groups. Being female increased low, middle and high family-income respondent's chances of enrolling in college by 88, 89 and 76 percent respectively, holding all other values constant. Finally, results for residing in an urban area revealed that middle family-income respondents were 1.3 percent more likely to enroll in college when they reside in an urban area. However, low and high family-income respondents who reside in an urban area were 11 and 5 percent less likely to enroll in college than low and middle family-income respondents who did not reside in an urban area. Results for the variable urban residence did not reach statistical significance for any of the family-income groups.

Research Question 4

To what extent does the relationship between parenting style and practices and the likelihood of enrolling in college vary by family structure after controlling for, race and ethnicity, family income, gender, region and mother's education, race and ethnicity and family income?

The fourth research question sought to find differences in the effects of the parenting factors on the likelihood of college enrollment by family structure. Table 6 displays the results of the logistic regression analysis for respondents raised in single-mother families, those who experienced at least one family transition, and those raised in dual-parent families respectively. A logistic regression model was estimated using three classes of variables as predictors, which included parenting, background, and control variables for respondents raised by a single-mother, respondents who experienced at least one family transition and respondents raised in stable, dual-biological parent families.

Table 6: Logistic Regression Results Predicting College Enrollment by Family Structure (Odds Ratio)							
	Single		Transition		Dual		
Intercept	0.000	*	0.000	*	0.000	*	
Race and Ethnicity (ref White)							
Hispanic	0.959		0.884		0.810		
Black	1.052		0.775		0.553	*	
Parenting Style (ref authoritative)							
Neglectful	0.409		0.731		3.015	*	
Permissive	0.782		0.608		1.116		
Authoritarian	1.467		1.464		1.188		
Parental Involvement							
Home	1.033		1.131	*	1.070	*	
School	1.090	*	0.994		1.019		
Family Income	1.029	*	^	1.006	*	1.003	
Mother's Education	1.357	*		1.121		1.299	*
Female	2.795	*		1.693	*	1.599	*
Urban	0.891			0.748		1.077	
* indicates the coefficient is significant at the .05 alpha level							
^ indicates there is a significant interaction between the two variables							

Results for the first class of variables were consistent across the three family configurations. For instance, the relationship between authoritarian parenting and college enrollment was positive for all three groups. More specifically, respondents from single-mother, transition and dual parent families' whose parents adopted a mostly authoritarian parenting style were 47, 46 and 19 percent more likely to enroll than respondents from single-mother, transition and dual-parent families whose parents adopted a mostly authoritative style are, holding all other factors constant. Results for authoritarian parenting did not reach statistical significance for any of the three groups.

Similarly, results revealed that each one-unit increase on the parental involvement at home scale increased the odds of enrolling in college for respondents from single-mother, transition and dual-parent families by 3, 13 and 7 percent respectively, holding all other factors constant. Results only reached statistical significance for respondents

from transition and dual-parent families. For parental involvement at school, results revealed that each one-unit increase on the involvement at school scale increased the odds of enrolling in college for single-mother and dual-parent families by 9 and 2 percent respectively, holding all other factors constant. Respondents who experienced a transition were 5 percent less likely to enroll in college with each one-unit increase on the involvement at school scale. Results for at school involvement only reached statistical significance for respondents from single-mother families.

The second class of variables includes race, ethnicity and family income. The relationship between being a member of one of the minorities groups and college enrollment was negative across the three family structure groups, but positive for Blacks in single-mother families. Blacks in single-mother families were 5 percent more likely to enroll in college than Whites in single-mother families while Hispanics in single-mother families were 4 percent less likely to enroll than Whites in single-mother families. Additionally, Hispanics and Blacks in transition families were 12 and 23 percent less likely to enroll in college than Whites in this family formation. Finally, Hispanics and Blacks in dual-parent families were 19 and 45 percent less likely to enroll in college than White respondents in this family formation, holding all other factors constant.

The relationship between family income and college enrollment was positive across family structure groups. More specifically, each \$10,000 increase in family income increased respondents in single-mother families' odds of enrolling in college by 30 percent, transition respondents' odds increased by 6 percent and respondents in dual-parent families' odds increased by 3 percent, holding all other factors constant.

Additionally, there was a significant positive interaction between family income and being in a single-mother family.

The final class of variables includes mother's education, gender and urban residence. Results revealed that each additional year of education a respondent's mother holds increased his or her odds of enrolling in college most for single-mother respondents (36%), nearly as much for respondents from dual-parent families (30%) and only 12 percent for respondents who experienced at least one transition. Additionally, being female increased single-mother respondents' chances of enrolling in college by 180 percent, transition respondents' by 69 percent, and dual-parent respondents' by 60 percent, holding all other factors constant. Finally, residing in an urban area decreased respondents from single-mother and transition families' odds of college enrollment by 11 and 25 percent respectively. Meanwhile, respondents who resided in urban areas from dual-parents families were 8 percent more likely to enroll than those in non-urban areas. The only variables within this class that made a statistically significant contribution in explaining variance in college enrollment were mother's education and being female.

CHAPTER 5: DISCUSSION

Introduction

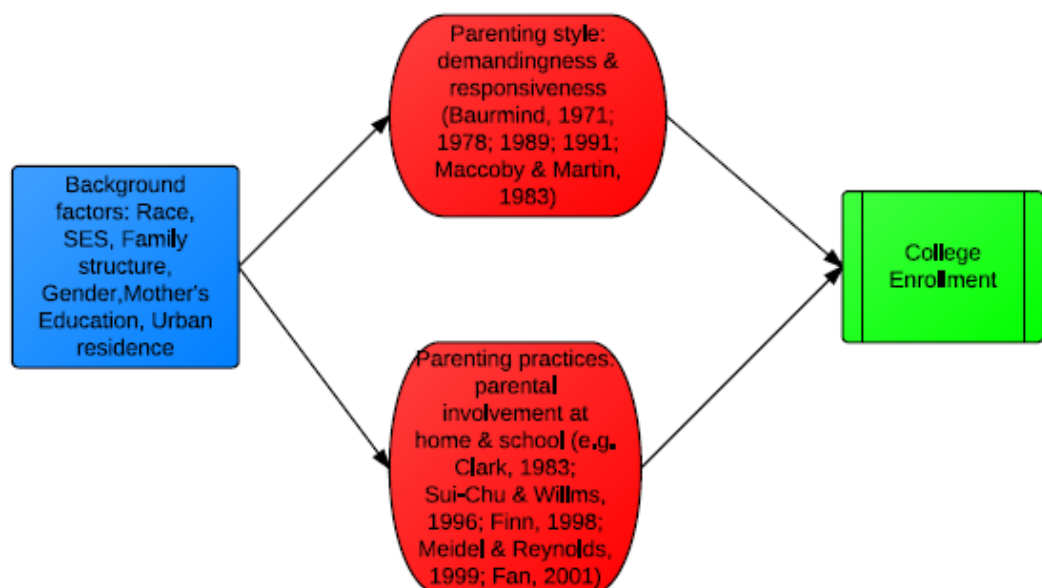
The purpose of this research study was to identify parenting predictors of college enrollment and how they might vary by race and ethnicity, family income and family structure. An understanding of these predictors can assist parents in adopting the most effective parenting style and implementing the most effective parenting practices to achieve the college enrollment of their children. Additionally, an understanding of these predictors can also assist schools, researchers and other parties that are invested in increased parental effectiveness. The sample for the study consists of young adults between the ages of 20 and 24 as of December 2006. Data from the Young Adult children of the women of the National Longitudinal Survey of Youth 1979 was used to address the four research questions.

The conceptual framework (displayed in Figure 1) for this research emerged from a critical review of the research on parenting style and parenting practices. The literature review examined two bodies of literature pertinent to the effects of parenting factors on college enrollment. These literary strands were: (1) parenting styles and (2) parental involvement (both at home and at school). The review of relevant literature provided evidence to suggest that the background factors of race or ethnicity, family income, and family structure affected both the parenting style and parenting practices. Darling and Steinberg (1993) further suggested that parenting style may influence the parenting practices a parent utilizes and that parenting practices, influenced by parenting style and background factors, directly affect college enrollment. The additional background factor

variables gender, mothers' education and residence were also found to influence college enrollment based on the research literature and are therefore treated as control variables.

Throughout the analysis several of the connections and disconnections suggested by previous research that were illustrated in the initial conceptual framework (Figure 1) departed from the findings in this study. The conceptual framework was revised with each finding. The final conceptual framework is displayed in Figure 2. There were three adjustments made. First, the unidirectional arrow from parenting style to parenting practices was removed as the results from this study did not support the theory that parenting style was a moderator of parenting practices on college enrollment. Next, a line was added to illustrate a relationship between parenting style and college enrollment. Although parenting style was not found to be a moderator of parenting practices, results did indicate an influence on college enrollment. Finally, a line was added to represent a direct relationship between background factors and college enrollment.

Figure 2: Revised Conceptual Framework



The remainder of this chapter begins with a summary of the logistic regression findings to answer the four research questions. Next, in a discussion of the results, I connect the findings to what earlier research has noted and I identify substantiation or refutation of the research. A discussion of the limitations of the study follows. To conclude, I make recommendations for practice, policy, and future research based upon the knowledge introduced in this research study.

Summary of the Findings

This section includes a summary of the findings from this research. It moves through the logistic regression findings by each predictor variable.

Parenting Style

Logistic regression findings for the variable parenting style were consistent across all race and ethnicity, family income and family structure groups. Respondents from all groups were more likely to have enrolled in college by 2006 when their parents adopted a mostly authoritarian parenting style rather than a mostly authoritative parenting style. Additionally, a separate analysis was run interacting parenting style and parenting practices. However, this interaction was not statistically significant.

Parenting Practices

The research literature on parenting practices divides this construct into two categories: Parental involvement at home and involvement at school. Parental involvement at home includes discussions about school and college, homework monitoring and assistance, and giving or limiting privileges because of grades. Parental involvement at school includes participation as volunteers, attendance at PTO/PTA

meetings, parent initiated school communication, and attendance at school functions such as plays and sporting events.

Parental Involvement at Home

Logistic regression results for the parenting practice parental involvement at home reveal that respondents from all groups were more likely to enroll in college with each unit increase on the parental involvement at home scale.

Parental Involvement at School

Results for the parenting practices variable parental involvement at school were not as consistent as those for parental involvement at home. For instance, all groups were more likely to enroll in college with each unit increase on the parental involvement at school scale except Black and Hispanic respondents and respondents who experienced a transition. Interaction results revealed a significant and negative interaction between being Black and increased parental involvement at school.

Background Variables

Logistic regression results for the three background variables race and ethnicity, family income and family structure are as follows: Hispanic and Black respondents were less likely to enroll in college than Whites except Blacks from single-mother families and Hispanics and Blacks from middle-income families (neither of which reach statistical significance). Each \$10,000 increase in family income improved all respondents' odds of college enrollment. Finally, all single-mother and transition respondents were less likely to enroll in college than respondents from dual-parent families, except Black respondents from single-mother families and respondents from middle and high-income single-mother families. Interaction results revealed a significant and positive interaction between being

Black and increased family-income and between single-mother families and higher family-income.

Control Variables

Logistic regression results for the three control variables are as follows: all respondents increased their chances of enrolling in college with each year of education their mother obtained. Similarly, female respondents from all group categories (race and ethnicity, family structure and family income) were more likely to enroll in college than male students. Additionally, interaction results indicated a significant positive interaction between being Black and female on college enrollment. There were no significant differences for any groups for the control variable urban or rural residence.

Discussion of Key Findings

The findings of the present study corroborate, contradict and extend those of previous research. This section discusses important findings from the logistic regressions in terms of the research literature reviewed in chapter 2. It starts by discussing findings relevant to the first research question. It then discusses findings related to the variable parenting style. A discussion of the results related to parenting practices follows.

Parenting Style as a Moderator

Darling and Steinberg (1993) suggested that the effects of parenting practices on specific child outcomes depend on the parenting style with which the practices are performed. Results offered by this research were not consistent with this theory. Even when run separately for each group results were statistically insignificant.

Two studies discussed in the literature review indicated that the interaction effects of specific parenting practices and parenting style were stronger than the individual effect of either construct alone (Steinberg, Lamborn, Dornbusch, & Darling, 1992; Grolnick, Gehl, & Manzo, 1997). For instance, Steinberg et al (1992) found that parental involvement more often promoted adolescent school success when it occurred in the context of an authoritative home environment. However, the interaction effects of parenting style and parental involvement at home and parenting style and parental involvement at school were not as strong as the original effects of each construct alone, with the exception of the interaction of neglectful parenting (see figure 3). Although the interaction of neglectful parenting and parental involvement at home effect (1.083) was stronger than that effect of parental involvement at home alone (1.073) the former effect was not statistically significant while the latter was. Additionally, the sample size for respondents with mostly neglectful parents was too small to draw conclusions. Results were the same for the interaction between parental involvement at school and parenting style (see figure 4).

While the parenting style used to provide parental involvement at home or school may influence the effectiveness of the involvement as it relates to adolescent school success, this does not appear to be the case for college enrollment. The only explanation I offer is that the student outcome college enrollment varies fundamentally from the student outcome k-12 school success. While adolescents may be sensitive to the style with which a parent conveys specific parenting practices as it relates to school achievement, adolescents may see college enrollment as a personal decision and are

therefore less likely to be as sensitive to the style with which a parent directs specific parenting practices aimed at motivating their enrollment.

Table 7: Parenting Style and Parental Involvement at Home Interaction Comparison		
Parenting Style	Exp(B) Interaction	Exp(B) Alone
Neglectful	1.083	1.239
Permissive	.900	.923
Authoritarian	.995	1.286*
Parental Invol at Home	---	1.073*

*Denotes statistical significant at the .005 alpha level.

Table 8: Parenting Style and Parental Involvement at School Interaction Comparison		
Parenting Style	Exp(B) Interaction	Exp(B) Alone
Neglectful	1.035	1.239
Permissive	.847	.923
Authoritarian	1.012	1.286*
Parental Invol at School	---	1.028

*Denotes statistical significant at the .005 alpha level.

Parenting Style and College Enrollment

The findings of the present study specific to the relationship between parenting style and college enrollment were not consistent with those of previous research. A large majority of research conducted on parenting styles and school achievement have found a positive relationship between authoritative parenting (high demanding and high responsiveness) and the educational outcomes of children (e.g. Dornbusch, Ritter, Leiderman, Roberts and Fraleigh, 1987; Steinberg, Lamborn, Dornbusch & Darling, 1992; Glasgow, Dornbusch, Troyer, Steinberg & Ritter, 1997). For instance, Dornbusch, Ritter, Leiderman, Roberts and Fraleigh (1987) found that authoritative parenting was positively associated with grades, while authoritarian (high demanding and low responsive) and permissive (low demanding and high responsive) parenting styles were negatively associated with grades in their examination of parenting style and adolescent

school performance. However, the results from this study do not support the theory that authoritative parenting is the most advantageous style of parenting with regard to college enrollment.

Instead, results from this study add to the growing body of research questioning the idea that the authoritative parenting style is always associated with optimum youth outcomes across all cultural and ethnic contexts (Dornbusch et al, 1987; Steinberg et al, 1992a, Steinberg et al, 1992b; Pittman & Chase-Lansdale, 2001; Steinberg, 2001). The results from this study indicated that authoritative parenting was not the most likely parenting style to facilitate the college enrollment of children. More specifically, authoritarian parenting was a better predictor of college enrollment for all groups investigated.

The discrepancy between previous research and the findings in this study may be due to the difference in the outcome variables. While the research discussed in the literature review examines the influence of parenting style on the academic achievement of adolescents in k-12 education, this study examined its influence on college enrollment. Although a more responsive parenting style may be more beneficial to academic success as the research literature suggests, a more demanding style appears to be more beneficial to college enrollment. According to Steinberg, Elmen and Mounts (1989) the positive impact of authoritative parenting on k-12 school success is mediated in part through the effects of authoritativeness on the development of a healthy sense of autonomy. As a result, it may be the case that students with authoritative parents are more likely to decide not to enroll in college than students with authoritarian parents given their stronger sense of autonomy.

While the findings of this regression offer that authoritarian parenting is the optimal parenting style to facilitate college enrollment, this finding must be interpreted with caution as the authoritarian parenting style may impact children in other areas of their development. For instance, according to theorist Alfie Kohn (2005) it is important to experience a sense of autonomy, a feeling that we are the initiators of much of what we do” (p. 168). Kohn argues in his book that there are emotional consequences of an excessive need to please and obey adults, which is more typically characteristic of children with authoritarian parents. Further, Kohn argues that parents who are not as demanding usually find that their children will do what they are asked anyway. He posits that resistance is more common among children who feel powerless and are driven to assert their autonomy in exaggerated ways.

Others argue that while authoritarian parenting may impact aspects of some children’s development adversely that authoritarian parenting does not have the same meaning across racial lines. More specifically, Deater-Deckard et al (1996) examined race as a moderator of the link between physical discipline and adolescent externalizing behavior problems of a representative community sample of 585 children who were followed from age 5 through 16. The authors found that there were race differences in the long-term effects of physical discipline between Whites and Blacks. The experience of discipline was related to higher levels of subsequent externalizing behavior for Whites, but lower levels for Blacks. The authors concluded that different environmental niches may affect the manner in which parents use discipline and the meaning children attach to its effects on adjustment. Both of these arguments suggest that further research on the

impacts of authoritarian parenting on children's development across racial lines is needed.

Although authoritarian parenting is associated with an increased likelihood of college enrollment over authoritative parenting for all respondents, results only reached statistical significance for Hispanic respondents. Furthermore, Hispanic respondents with authoritarian parents were twice as likely to enroll in college as Black respondents with authoritarian parents, and 6 times as likely to enroll as White respondents with mostly authoritarian parents. Cultural generalizations about an ethnic group as diverse as Hispanics are problematic; however, there are a few core cultural values amongst Hispanics that may explain the significant influence of authoritarian parenting on college enrollment for Hispanic respondents such as *familismo* and *respeto*. *Familismo* generally describes the collectivistic nature of Hispanic culture. Specific aspects of familism include strong family unity, interdependence in daily activities and decisions, and close proximity with extended family members (Dinh, Roosa, Tein & Lopez, 2002). *Respeto* encompasses respect for the authority of parents and older family members, and expectations for politeness, obedience, and non-argumentativeness in all interactions with elders of Hispanic youth (Yasui & Dishion, 2007). Hispanic respondents' culturally influenced values of family interdependence in decision-making and obedience to elders may explain the significant positive relationship between authoritarian parenting and college enrollment for Hispanic respondents.

Parenting Practices and College Enrollment

Involvement at home

The findings from this research are consistent with those of the parental involvement research literature. For instance, parental involvement both at home and school have been argued to enhance children's achievement in school by providing student's with a variety of skill-related and motivational resources (Pomerantz, Moorman & Litwack, 2007). Similarly, results from this study indicate that higher scores on the parental involvement at home scale increased the likelihood of college enrollment for all respondents. In addition to the skill-related and motivational resources of home parental involvement, the positive association between involvement at home and increased odds of college enrollment may be because parents who engage in higher levels of involvement at home may be more aware of their children's academic weaknesses and thus are more adept to circumvent children's academic difficulties with effective preventive measures.

Although a majority of research on parental involvement report a positive relationship between involvement at home and student outcomes, in a review of the literature on parental involvement, Moorman, Pomeranz, and Litwack (2007) noticed that home involvement that was indirectly correlated with school predicted enhanced student achievement while home involvement linked directly to school was not always beneficial. However, this study only tested the latter and results still indicated higher odds of college enrollment for all respondents. The disparate findings may be explained by the diversity of the respondents examined. While 58 percent of the sample of the present study was comprised of minority respondents, Moorman, Pomeranz and Litwack's indicated that most of the studies they reviewed were conducted with predominately middle-class,

White respondents. In the present study, parental involvement at home most strongly predicted college enrollment for Hispanic and Black respondents. Given the traditionally vulnerable nature of these respondents with regards to college enrollment, this is an important finding.

This study provides evidence that parenting practices that are significant to the college enrollment of White students may not be significant for students of color, and vice versa. Additionally, it also provides evidence for the value of programs and initiatives aimed at increasing parental involvement at home for adolescents as such efforts have the potential to increase the college enrollment of students of all race and ethnicity, family-income and family structure populations. Finally, the findings of this study highlight the need for future research on parental involvement at home to take account of the diversity of the student population.

Involvement at school

Findings from this study corroborate findings from previous studies that found that parental involvement at home predicted academic achievement more strongly than parental involvement at school (Ho Sui-Chu and Willms, 1996; Finn, 1998; Izzo, Weissburg, Kasprow & Fendrich, 1999). For instance, Ho Sui-Chu and Willms' (1996) comparison of parental involvement at home and at school found that involvement at home was more significant to academic achievement than parental involvement at school. More specifically, the authors found that parent-child talks about school and planning students' education programs had the greatest effect on student achievement when compared to volunteering and attending school activities. Similarly, results from this study found that parental involvement at school increased the likelihood of college

enrollment for respondents from most groups (with the exception of Hispanic, Black and transition respondents), but was not as strong a predictor as parental involvement at home, except for Whites.

Higher scores on the parental involvement at school scale were actually negatively associated with college enrollment for Black and Hispanic students, according to the findings from this study. Additionally, this study found a negative interaction between being Black and parental involvement at school on college enrollment. Previous studies have suggested that Black parents' contact with schools may be related to students' poor behavior or academic problems (Fan, 1988; Ho & Willms, 1996). For instance, Fan (1988) found a negative relationship between parents' contact with schools and lower academic performance. He suggested that parents' contact with schools related to lower performance because it was likely triggered by students not doing well in school to begin with.

Some researchers argue that minority parents engage with schools only when contacted by school officials because of perceived racist and classist policies and interactions. In a study examining inner-city African American parental involvement at school, McKay, Atkins, Hawkins, Brown and Lynn (2003) found that racism awareness among African Americans was positively associated with parental home involvement and inversely to parental school involvement. Other researchers point to the possibility that parents with less education may be intimidated by the school setting because it is largely a middle-class institution with middle-class norms and forms of communication (Lareau, 1987, 1989). Still, other researchers argue that parents from ethnic minority groups may

be hesitant to become involved in their children's schools as a result of language barriers or differences in cultural values (Delgado-Gaitan, 1991).

According to previous studies, high levels of parental involvement at school may be associated negatively with college enrollment for minority students due to the unwelcoming climate of many school environments. According to these studies, unwelcoming school climates lead to the negative association between parental involvement at school and college enrollment for minority parents by dissuading their initiation of involvement at school. This results in minority parents only engaging in involvement at school when they are contacted by their child's school about a problem or concern with the child.

A negative association between parents' involvement at their children's school and college enrollment presents a serious obstacle for parents who aim to increase the chances of college enrollment for their children. According to Clark (1983), students often perceive their parents' school involvement as evidence to continued parental expectation of their successful school performance and of parental acceptance of some responsibility for that performance. Results from this study are not intended to add credence to the finding that minority students are adversely affected by parental involvement at school. Rather, it is hoped that findings from this study will highlight the disparity between the positive relationship of parental school involvement for White students and the negative relationship for minority students so that 1) future research be dedicated to examining the negative relationship for minority families further and 2) measures will be taken to establish school environments that are more welcoming to minority and low-income families.

One approach to facilitating positive parental involvement at school for minority parents may be through school-based extracurricular activities. In a study examining the relationship between African American students participation in extracurricular activities and parent involvement, the authors found a significant positive correlation between the two (O'Bryan, Braddock, & Dawkins, 2006). Additionally, the authors found a significantly positive relationship between varsity sports participation and parent-initiated school communication for both males and females. These results indicate that school-based activities may be an underutilized tool in the search for more effective and creative strategies to involve parents in schools in a positive manner.

Limitations

The sample used for this study consisted of parents representing the three largest race and ethnicities groups in the US as well as parents of various income and education levels. However, the sample includes children born to the original 1979 sample of women as long as they are still living with their mothers. As a result, this study focuses exclusively on single-mother, remarried mothers, and dual-biological parent families thus single-father and remarried father families were excluded. Gadsden (2002) warns that mothers are often the default category in parent-child studies with respect to low-income, minority communities. Further research is warranted on the aspects of fathers' parenting that benefit children and urge researchers to take up this task. Another limitation to this study is that the dataset used did not allow for an investigation of older mothers as the women surveyed in 1979 were between the ages of 14 and 22. This may have limited the findings of this study because there may be important differences between this group of

mothers and mothers who were over 22 at the birth of their first child for which this study was unable to account.

Moreover, the research offers little about contextual nature of parenting styles. For example, one family's parenting style with regard to supporting their child's interest in sports, music, or other extracurricular activities may be perceived as neglectful, but perceived as authoritative when their child's academic endeavors within the curriculum are involved. Finally, it is important to keep in mind that the information on parenting was obtained from adolescents and not through objective observations of parent-child interactions. Thus, it can only be said with certainty that adolescents who *feel* that their parents are authoritarian and highly involved in their schooling will be more likely to enroll in college than adolescents of parents who are not.

Implications for Practice and Policy

The results of this study offer some important implications for a variety of constituencies. These include students and their families, schools, educational researchers, and other individuals and organizations that work to alleviate the college enrollment disparity between racially and economically dominant and marginalized groups.

The evidence suggests that families lay the groundwork for college enrollment long before students get to their senior year of high school. Hispanic, Black, and White parents, parents of all income levels and family configurations who aspire to send their children to college would be best advised to engage in high levels of involvement at home to meet this student outcome. Additionally, White parents would be well advised to

also engage in high levels of parent-initiated school involvement. Finally, Hispanic parents would be well advised to adopt a mostly authoritarian parenting style.

Schools can also assist parents, especially Black and Hispanic parents, in preparing their children for later college enrollment. A key finding of this research is that there is a negative relationship between high levels of parental involvement and college enrollment for Black and Hispanic respondents. According to previous research, this relationship may be a result of school climates that are unwelcoming to Black and Hispanic parents. To improve school climate, to in turn increase positive parental involvement at school amongst minority parents schools should start by assessing how parents gauge the climate at their children's schools. There are a variety of ways schools can assess how parents gauge school climate. Some schools conduct focus groups while others carry out a series of interviews or administer surveys (Freiberg, 1999). Whichever assessment is used, it must ensure that a diverse sample of parents who are representative of all parents at the school are involved. After the data are gathered, and the principal has an opportunity to digest the findings, he or she should then set in motion a process for all members of the community to understand the findings. Then, members of the school community should prioritize their goals to improve the climate of their school, and translate those goals into an action plan for climate improvement (Cohen et al, 2007).

Finally, researchers can also assist parents and schools in their efforts to increase the chances of college enrollment for all students by continuing to investigate the unknowns of parenting and college enrollment. More specifically, based on the results of this study Hispanic children of mostly authoritarian parents are more likely to enroll in college than those of mostly authoritative parents. While helpful, this finding creates

more questions than answers. Further research is needed to better understand this relationship. Future research should ask: What aspects of authoritarian parenting facilitate college enrollment? Additionally, while findings show that Hispanic respondents of mostly authoritarian parents are more likely to enroll in college, the question remains about how students fare once enrolled. As a result, future research should also examine the college retention and completion of Hispanic respondents of mostly authoritarian parents versus those of mostly authoritative parents. Furthermore, it was noted in previous research that involvement at home linked directly to school is not always beneficial (Moorman, Pomeranz, & Litwack (2007)). While the findings of this study indicate otherwise, the sample used for the present study and those in the studies reviewed by Moorman, Pomeranz, and Litwack are not comparable. Moorman, Pomeranz, and Litwack (2007) reviewed studies with predominately White, middle-class samples. This is a common issue in research on parental involvement and parenting styles. As a result, future research is needed to examine which aspects of parental involvement at home best facilitate college enrollment while taking race and ethnicity into account. Future research should ask: Which specific parenting practices are most influential on Black and Hispanic adolescent college enrollment, and how can programs best address these practices in a culturally relevant manner?

Additionally, researchers can assist schools in increasing the involvement of minority parents by partnering with schools to assist them in assessing school climate. Ideally, school climate assessments will be carried out with a reliable and valid instrument that has been developed in a scientifically sound manner and that recognizes parent perspectives. As principals and officials may not have the expertise or resources to

ensure such assessments, educational researchers would be an invaluable resource in this endeavor.

Summary

The purpose of this study was to identify parenting predictors of college enrollment by race and ethnicity, family income and family structure. There were five key findings related to parenting and college enrollment and they are as follows:

- 1) The effect of parenting practices (parental involvement at home and school) on college enrollment is not influenced by the parenting style adopted by the parent
- 2) The authoritarian (high demanding, low responsive) parenting style is a better predictor of college enrollment than the authoritative (high demanding, high responsive) parenting style for Hispanic respondents
- 3) Higher parental involvement at home is associated with higher odds of college enrollment
- 4) Higher parental involvement at school is associated with higher odds of college enrollment only for White students from single-mother and dual-parent families (and are associated with lower odds of college enrollment for minorities and individuals who have experienced a family transition)
- 5) There is a negative interaction between being Black and higher parental involvement at school

The findings of this study contribute to the literature on parenting style, parental involvement and college enrollment. The implications for practice include assessing school climate to ensure schools are welcoming of the involvement of all parents, and creating a plan of action when it is determined that they are not. The recommendations

for research include asking the following questions: What aspects of authoritarian parenting facilitates college enrollment? Are there differences in college retention and completion for respondents of mostly authoritarian parents versus those of mostly authoritative parents? Which specific parenting practices are most influential on Black and Hispanic adolescent college enrollment, and how can programs best address these practices in a culturally relevant manner?

Conclusion

Obtaining a college education has become increasingly important for financial stability (Carey, 2004; Hefner, 2004). Due to the direct relation between obtaining a college degree and economic mobility, a college education is critical to narrowing the income and wealth gaps between traditionally disadvantaged and privileged groups in the United States. As a result, it is increasingly significant for educators and policymakers to understand gaps in college enrollment between dominant and marginalized groups. This research offers explanations for differences in college enrollment along race, family structure and class lines as well as identifies approaches and practices that parents can adopt and schools, researchers and educational policy can support.

Putting the tools to facilitate college enrollment in the hands of parents is an efficient approach to narrowing the college enrollment gap between White and minority groups, lower and higher income groups and traditional and non-traditional families. If parents can assist their children in securing their financial futures by ensuring that they attend college regardless of their circumstances, then they should be supported in this endeavor. To be sure, the parental involvement and parenting style literatures are lacking in their knowledge of the effects of both aspects of parenting on diverse populations. The

research conducted in this study has sought to include various race and ethnicities, income levels and family formations in an examination of the aforementioned factors. According to this research, *all* students are significantly more likely to secure their college futures when their parents are highly involved in their educations. It is hoped that this study has raised questions that will result in additional studies that will continue the tradition of analyzing the myths and exploring the realities of parenting of *all* children and the subsequent effects on college enrollment.

APPENDIX A: TABLES

Table 1: Parenting Style Typologies Chart		
	<i>Demanding</i>	<i>Undemanding</i>
<i>Responsive</i>	Authoritative	Permissive
<i>Unresponsive</i>	Authoritarian	Neglectful

Table 2: Variable Means/ Proportions, Total and by Race and Ethnicity

	Total	Hispanic	Black	White
Race and Ethnicity				
Hispanic	23.8	---	---	---
Black	34.4	---	---	---
White	41.8	---	---	---
Parenting Style				
Neglectful	2.2	1.8	2.7	1.9
Permissive	4.3	3.4	4.7	4.5
Authoritarian	33.4	29.4	31.5	37.2
Authoritative	60.2	65.5	61.1	56.3
Parental Involvement				
Home (0-33)	15.4	14.9	16.1	15.2
School (0-16)	6.6	6.0	7.0	6.6
Average Family Income	45.5	45.8	29.0	59.0
Low Family-Income	29.4	28.0	44.6	17.6
Middle Family-Income	28.6	29.8	30.8	26.1
High Family-Income	42.0	42.3	24.6	56.2
Family Structure				
Single Mother	23.4	17.5	42.9	11.0
Transition	21.1	25.1	38.0	36.9
Dual Parent	55.4	26.0	21.0	53.0
Mother's Education	12.3	11.6	12.4	12.7
Female	52.6	47.6	56.0	52.5
Urban	77.3	90.2	81.2	66.8
N	2116	504	728	884

Table 3: Percent Attending College by December 2006

	Total % Enrolled	Hispanic	Black	White
Race and Ethnicity				
Hispanic	38.3	---	---	---
Black	37.9	---	---	---
White	51.6	---	---	---
Parenting Style				
Neglectful	34.8	33.3	25.0	47.1
Permissive	34.1	35.5	23.5	42.5
Authoritarian	50.0	48.6	45.0	54.1
Authoritative	41.2	33.9	36.0	50.8
Parental Involvement				
Low Home	34.6	27.4	29.4	42.6
Medium Home	47.1	45.5	37.4	55.0
High Home	49.6	45.7	44.1	58.1
Low School	34.3	34.0	33.0	35.6
Medium School	43.2	38.9	38.3	49.4
High School	47.8	39.9	39.0	59.4
Family Income				
Low Family Income	27.0	22.0	24.9	35.9
Middle family Income	39.5	39.3	42.4	36.8
High Family Income	58.3	48.4	55.9	63.4
Family Structure				
Single mother	34.5	25.3	35.9	38.1
Transition	34.7	31.1	32.9	38.8
Dual-parent	51.1	44.6	43.9	57.1
Mother's Education				
Some High School	21.3	25.0	16.8	22.1
High School Complete	40.5	34.5	36.3	46.6
At least Some College	60.8	57.6	52.4	68.6
Gender				
Female	49.4	42.5	47.1	55.0
Male	37.5	34.5	26.3	47.9
Residence				
Urban	43.2	37.5	38.2	52.6
Non-urban	44.6	47.9	35.6	48.3
Total	43.7	23.8	34.4	41.8

Table 4: Logistic Regression Results Predicting College Enrollment by Race and Ethnicity (Odds Ratio)

	Model 1		Hispanic		Black		White	
Intercept	0.005	*	0.015	*	0.001	*	0.002	*
Race and Ethnicity (ref White)	*							
Hispanic	0.835		---		---		---	
Black	0.691	*	---		---		---	
Parenting Style (ref authoritative)	*							
Neglectful	1.237		3.619		0.972		1.263	
Permissive	0.921		1.480		0.527		1.006	
Authoritarian	1.288	*	1.739	*	1.260		1.115	
Parental Involvement								
Home	1.073	*	1.109	*	1.088	*	1.048	*
School	1.028		0.979		0.985	^	1.111	*
Family Income	1.005	*	1.004	*	1.023	*	^	1.002
Family Structure (ref dual-parent)								
Single mother	0.880	*	0.508	*	1.340		0.579	*
Transition	0.692	*	0.606	*	0.965		0.553	*
Mother's Education	1.277	*	1.168	*	1.219	*		1.403
Female	1.784	*	1.464		2.839	*	^	1.394
Urban	0.984		0.738		0.805			1.060

* indicates the coefficient is significant at the .05 alpha level

^ indicates there is a significant interaction between the two variables

Table 5: Logistic Regression Results Predicting College Enrollment by Family Income (Odds Ratio)

	Low		Middle		High	
Intercept	0.021	*	0.011	*	0.002	*
Race and Ethnicity (ref White)						
Hispanic	0.515	*	1.400		0.728	
Black	0.509	*	1.062		0.655	*
Parenting Style (ref authoritative)						
Neglectful	0.903		1.358		1.877	
Permissive	0.371	*	2.558		1.165	
Authoritarian	1.195		1.268		1.319	
Parental Involvement						
Home	1.056	*	1.075	*	1.084	*
School	1.064		1.008		1.028	
Family Structure (ref dual-parent)						
Single mother	0.774		1.022		1.162	
Transition	0.635		0.733		0.695	
Mother's Education	1.136	*	1.156	*	1.389	*
Female	1.882	*	1.894	*	1.758	*
Urban	0.890		1.013		0.946	
* indicates the coefficient is significant at the .05 alpha level						
^ indicates there is a significant interaction between the two variables						

Table 6: Logistic Regression Results Predicting College Enrollment by Family Structure (Odds Ratio)

	Single	Transition	Dual
Intercept	0.000 *	0.000 *	0.000 *
Race and Ethnicity (ref White)			
Hispanic	0.959	0.884	0.810
Black	1.052	0.775	0.553 *
Parenting Style (ref authoritative)	---	---	---
Neglectful	0.409	0.731	3.015 *
Permissive	0.782	0.608	1.116
Authoritarian	1.467	1.464	1.188
Parental Involvement			
Home	1.033	1.131 *	1.070 *
School	1.090 *	0.994	1.019
Family Income	1.029 * ^	1.006 *	1.003
Mother's Education	1.357 *	1.121	1.299 *
Female	2.795 *	1.693 *	1.599 *
Urban	0.891	0.748	1.077

* indicates the coefficient is significant at the .05 alpha level

^ indicates there is a significant interaction between the two variables

Table 7: Parenting Style and Parental Involvement at Home Interaction Comparison

	Exp(B) Interaction	Exp(B) Alone
Neglectful Parenting Style	1.083	1.239
Permissive Parenting Style	.900	.923
Authoritarian Parenting Style	.995	1.286*
Parental Invol at Home	---	1.073*

*Denotes statistical significant at the .005 alpha level.

Table 8: Parenting Style and Parental Involvement at School Interaction Comparison

	Exp(B) Interaction	Exp(B) Alone
Neglectful Parenting Style	1.035	1.239
Permissive Parenting Style	.847	.923
Authoritarian Parenting Style	1.012	1.286*
Parental Invol at School	---	1.028

*Denotes statistical significant at the .005 alpha level.

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